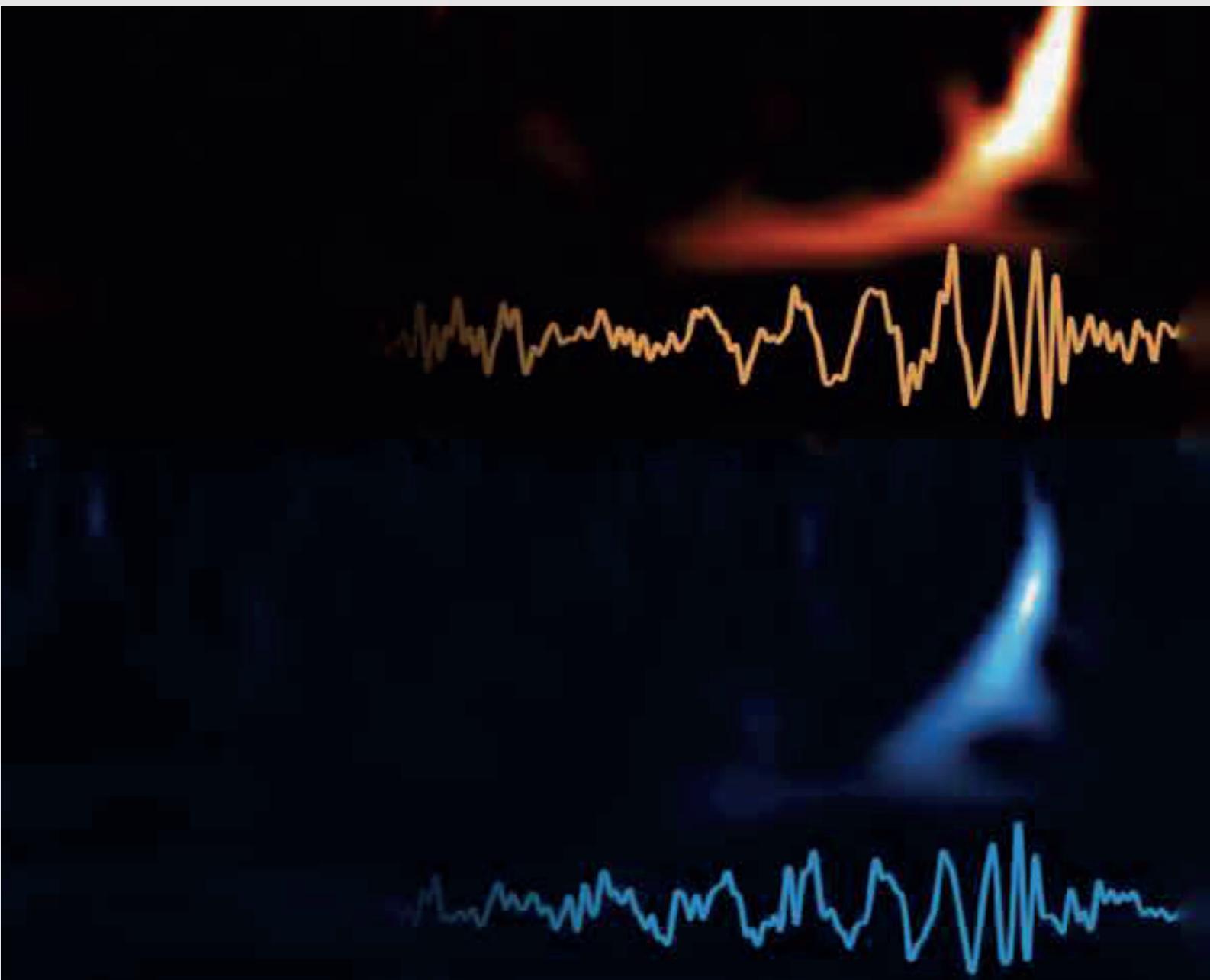


# ANNUAL REPORT APPENDIX 2016



National Institute for Subatomic Physics



# **Annual Report 2016 Appendix**

**National Institute  
for Subatomic Physics  
Nikhef**



# Colophon

## Nikhef

Nationaal instituut voor subatomaire fysica  
*National Institute for Subatomic Physics*

### Visiting address      Post address

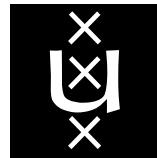
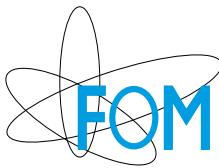
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Photos: CERN, Nikhef, Desiré van den Berg/FD, Ivo de Bruijn, Ronald Bruijn, Pieter Crucq, Kees Huyser, Jan Koopstra, Marco Kraan, Arne de Laat, Marieke de Lorein, Wesley Poland, Daniël Rommens/Folia, Jan Willem Steenmeijer/UvA  
Cover: First observation of gravitational waves by the LIGO-Virgo collaboration.



Nikhef participates in experiments at the Large Hadron Collider at CERN, notably ATLAS, LHCb and ALICE. Astroparticle physics activities at Nikhef are fourfold: the ANTARES and KM3NeT neutrino telescope projects in the Mediterranean Sea; the Pierre Auger Observatory for cosmic rays, located in Argentina; gravitational-wave detection via the Virgo interferometer in Italy, the direct search for Dark Matter with the XENON detector in the Gran Sasso underground laboratory in Italy. The low-energy eEDM experiment is located at the University of Groningen. Detector R&D, design and construction take place at the laboratory located at Amsterdam Science Park as well as at the participating universities. Data analyses make extensive use of large-scale computing at the Tier-1 grid facility operated jointly by Nikhef and SURFsara. The Nikhef theory group has its own research programme while being in close contact with the experimental groups.

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# Publications

## ATLAS/D $\emptyset$

**ATLAS Collaboration:** M. Aaboud (*et al.*); G. Aad (*et al.*), B. Abbott (*et al.*), R. Aben, I. Angelozzi, L.J. Beemster, S. Bentvelsen, D. Berge, E. Berglund, G.J. Besjes, G.J. Bobbink, K. Bos, H. Boterenbrood, L. Brenner, L. Bruni, P. Butti, S. Caron, A. Castelli, L. Colasurdo, A.P. Colijn, M. Consonni, V. Croft, V. Dao, I. Deigaard, P.C. Van Der Deijl, C. Deluca, P.O. Deviveiros, D. Dhaliwal, A. Doxiadis, D. Duda, P. Ferrari, F. Filthaut, S. Gadatsch, C. Galea, H. Garitaonandia Elejabarrieta, R. van der Geer, D.A.A. Geerts, M. Gosselink, H. van der Graaf, N. de Groot, F. Hartjes, N.P. Hessey, N. Hod, O. Igonkina, P. de Jong, N. Karastathis, M.S. Kayl, Z. van Kesteren, P.F. Klok, S. Klous, P. Kluit, A.C. König, E. Koffeman, E. van der Kraaij, H. Lee, R. van der Leeuw, T. Lenz, F. Linde, G. Luijckx, J. Mahlstedt, G. Massaro, J. Mechlich, J. Meyer, I. Mussche, S. Nektarjevic, L. de Nooij, J.P. Ottersbach, K.P. Oussoren, P. Pani, E. van der Poel, M. Rijpstra, N. Ruckstuhl, G. Sabato, D. Salek, A. Salvucci, M. Slawinska, A. Strubig, Antonia Streebig, M. Tsakiris, N. Valencic, W. Verkerke, J.C. Vermeulen, M. Vranjes Milosavljevic, M. Vreeswijk, I. van Vulpen, H. Weits, S. Williams, W. Van Den Wollenberg

Inclusive searches for squarks and gluinos with the ATLAS detector

EPL Web of Conf. **126** (2016) 04013

<http://dx.doi.org/10.1051/epjconf/201612604013>

Measurements of fiducial cross-sections for  $t\bar{t}$  production with one or two additional b-jets in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector

Eur. Phys. J. **C 76** (2016) 11

<http://dx.doi.org/10.1140/epjc/s10052-015-3852-4>

Search for flavour-changing neutral current top-quark decays to qZ in pp collision data collected with the ATLAS detector at  $\sqrt{s} = 8$  TeV

Eur. Phys. J. **C 76** (2016) 12

<http://dx.doi.org/10.1140/epjc/s10052-015-3851-5>

Identification of boosted, hadronically decaying W bosons and comparisons with ATLAS data taken at  $\sqrt{s} = 8$  TeV

Eur. Phys. J. **C 76** (2016) 154

<http://dx.doi.org/10.1140/epjc/s10052-016-3978-z>

Measurement of the centrality dependence of the charged-particle pseudorapidity distribution in proton-lead collisions at  $\sqrt{s}_{NN} = 5.02$  TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 199

<http://dx.doi.org/10.1140/epjc/s10052-016-4002-3>

Search for new phenomena in events with at least three photons collected in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 210

<http://dx.doi.org/10.1140/epjc/s10052-016-4034-8>

Probing lepton flavour violation via neutrinoless  $\tau \rightarrow 3\mu$  decays with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 232

<http://dx.doi.org/10.1140/epjc/s10052-016-4041-9>

A new method to distinguish hadronically decaying boosted Z bosons from W bosons using the ATLAS detector

Eur. Phys. J. **C 76** (2016) 238

<http://dx.doi.org/10.1140/epjc/s10052-016-4065-1>

Centrality dependence of charged jet production in p-Pb collisions at  $\sqrt{s}_{NN} = 5.02$  TeV

Eur. Phys. J. **C 76** (2016) 271

<http://dx.doi.org/10.1140/epjc/s10052-016-4107-8>

Measurement of the differential cross-sections of prompt and non-prompt production of J/ $\psi$  and  $\psi(2S)$  in pp collisions at  $\sqrt{s} = 7$  and 8 TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 283

<http://dx.doi.org/10.1140/epjc/s10052-016-4050-8>

Measurement of the transverse momentum and  $\phi_{\eta}^*$  distributions of Drell-Yan lepton pairs in proton-proton collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 291

<http://dx.doi.org/10.1140/epjc/s10052-016-4070-4>

Muon reconstruction performance of the ATLAS detector in proton-proton collision data at  $\sqrt{s} = 13$  TeV  
 Eur. Phys. J. **C 76** (2016) 292  
<http://dx.doi.org/10.1140/epjc/s10052-016-4120-y>

Reconstruction of hadronic decay products of tau leptons with the ATLAS experiment  
 Eur. Phys. J. **C 76** (2016) 295  
<http://dx.doi.org/10.1140/epjc/s10052-016-4110-0>

Measurement of the charged-particle multiplicity inside jets from  $\sqrt{s}=8$  TeV pp collisions with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 322  
<http://dx.doi.org/10.1140/epjc/s10052-016-4126-5>

Measurement of event-shape observables in  $Z \rightarrow \ell^+ \ell^-$  events in pp collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector at the LHC  
 Eur. Phys. J. **C 76** (2016) 375  
<http://dx.doi.org/10.1140/epjc/s10052-016-4176-8>

Search for squarks and gluinos in final states with jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 392  
<http://dx.doi.org/10.1140/epjc/s10052-016-4184-8>

Study of the  $B_c^c \rightarrow J/\psi D_s^+$  and  $B_c^c \rightarrow J/\psi D_s^{*+}$  decays with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 4  
<http://dx.doi.org/10.1140/epjc/s10052-015-3743-8>

Charged-particle distributions in pp interactions at  $\sqrt{s}=8$  TeV measured with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 403  
<http://dx.doi.org/10.1140/epjc/s10052-016-4203-9>

Search for single production of vector-like quarks decaying into Wb in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 442  
<http://dx.doi.org/10.1140/epjc/s10052-016-4281-8>

Search for an additional, heavy Higgs boson in the  $H \rightarrow ZZ$  decay channel at  $\sqrt{s} = 8$  TeV in pp collision data with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 45  
<http://dx.doi.org/10.1140/epjc/s10052-015-3820-z>

Searches for scalar leptoquarks in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 5  
<http://dx.doi.org/10.1140/epjc/s10052-015-3823-9>

Charged-particle distributions at low transverse momentum in  $\sqrt{s} = 13$  TeV pp interactions measured with the ATLAS detector at the LHC  
 Eur. Phys. J. **C 76** (2016) 502  
<http://dx.doi.org/10.1140/epjc/s10052-016-4335-y>

Study of the rare decays of  $B_s^0$  and  $B^0$  into muon pairs from data collected during the LHC Run 1 with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 513  
<http://dx.doi.org/10.1140/epjc/s10052-016-4338-8>

Search for supersymmetry in a final state containing two photons and missing transverse momentum in  $\sqrt{s} = 13$  TeV pp collisions at the LHC using the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 517  
<http://dx.doi.org/10.1140/epjc/s10052-016-4344-x>

The performance of the jet trigger for the ATLAS detector during 2011 data taking  
 Eur. Phys. J. **C 76** (2016) 526  
<http://dx.doi.org/10.1140/epjc/s10052-016-4325-0>

Search for supersymmetry at  $\sqrt{s} = 13$  TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 529  
<http://dx.doi.org/10.1140/epjc/s10052-016-4065-1>

Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at  $\sqrt{s}=8$  TeV using the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 538  
<http://dx.doi.org/10.1140/epjc/s10052-016-4366-4>

Search for new phenomena in different-flavour high-mass dilepton final states in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 541  
<http://dx.doi.org/10.1140/epjc/s10052-016-4385-1>

Search for bottom squark pair production in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 547  
<http://dx.doi.org/10.1140/epjc/s10052-016-4382-4>

Search for single top-quark production via flavour-changing neutral currents at 8 TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 55  
<http://dx.doi.org/10.1140/epjc/s10052-016-3876-4>

Search for gluinos in events with an isolated lepton, jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 565  
<http://dx.doi.org/10.1140/epjc/s10052-016-4397-x>

Performance of pile-up mitigation techniques for jets in pp collisions at  $\sqrt{s}=8$  TeV using the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 581  
<http://dx.doi.org/10.1140/epjc/s10052-016-4395-z>

Search for minimal supersymmetric Standard Model Higgs bosons H/A and for a Z' boson in the  $\tau\tau$  final state produced in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 585  
<http://dx.doi.org/10.1140/epjc/s10052-016-4400-6>

Measurements of the Higgs boson production and decay rates and coupling strengths using pp collision data at  $\sqrt{s}=7$  and 8 TeV in the ATLAS experiment  
 Eur. Phys. J. **C 76** (2016) 6  
<http://dx.doi.org/10.1140/epjc/s10052-015-3769-y>

Search for the Higgs boson produced in association with a W boson and decaying to four b-quarks via two spin-zero particles in pp collisions at 13 TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 605  
<http://dx.doi.org/10.1140/epjc/s10052-016-4418-9>

Luminosity determination in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector at the LHC  
 Eur. Phys. J. **C 76** (2016) 653  
<http://dx.doi.org/10.1140/epjc/s10052-016-4466-1>

Test of CP Invariance in vector-boson fusion production of the Higgs boson using the Optimal Observable method in the di-tau decay channel with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 658  
<http://dx.doi.org/10.1140/epjc/s10052-016-4499-5>

Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run-1 data  
 Eur. Phys. J. **C 76** (2016) 666  
<http://dx.doi.org/10.1140/epjc/s10052-016-4507-9>

Measurement of the  $b\bar{b}$  dijet cross section in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 670  
<http://dx.doi.org/10.1140/epjc/s10052-016-4521-y>

Search for squarks and gluinos in events with hadronically decaying tau leptons, jets and missing transverse momentum in proton–proton collisions at  $\sqrt{s} = 13$  TeV recorded with the ATLAS detector  
 Eur. Phys. J. **C 76** (2016) 683  
<http://dx.doi.org/10.1140/epjc/s10052-016-4481-2>

Search for direct top squark pair production in final states with two tau leptons in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 81

<http://dx.doi.org/10.1140/epjc/s10052-016-3897-z>

Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in pp collision data at  $\sqrt{s} = 8$  TeV with the ATLAS detector

Eur. Phys. J. **C 76** (2016) 87

<http://dx.doi.org/10.1140/epjc/s10052-016-3910-6>

Search for a high-mass Higgs boson decaying to a W boson pair in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

J. High Energy Phys. **01** (2016) 032

<http://dx.doi.org/10.1007/JHEP01%282016%29032>

Measurement of the production cross-section of a single top quark in association with a W boson at 8 TeV with the ATLAS experiment

J. High Energy Phys. **01** (2016) 064

<http://dx.doi.org/10.1007/JHEP01%282016%29064>

Search for invisible decays of a Higgs boson using vector-boson fusion in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

J. High Energy Phys. **01** (2016) 172

<http://dx.doi.org/10.1007/JHEP01%282016%29172>

A search for prompt lepton-jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

J. High Energy Phys. **02** (2016) 062

<http://dx.doi.org/10.1007/JHEP02%282016%29062>

Search for the production of single vector-like and excited quarks in the Wt final state in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

J. High Energy Phys. **02** (2016) 110

<http://dx.doi.org/10.1007/JHEP02%282016%29110>

Search for strong gravity in multijet final states produced in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector at the LHC

J. High Energy Phys. **03** (2016) 026

<http://dx.doi.org/10.1007/JHEP03%282016%29026>

Search for new phenomena with  $\gamma +$  jet events in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector

J. High Energy Phys. **03** (2016) 041

<http://dx.doi.org/10.1007/JHEP03%282016%29041>

Search for charged Higgs bosons in the  $H^+ \rightarrow tb$  decay channel in pp collisions at  $\sqrt{s}=8$  TeV using the ATLAS detector

J. High Energy Phys. **03** (2016) 127

<http://dx.doi.org/10.1007/JHEP03%282016%29127>

Search for anomalous couplings in the Wtb vertex from the measurement of double differential angular decay rates of single top quarks produced in the t-channel with the ATLAS detector

J. High Energy Phys. **04** (2016) 032

<http://dx.doi.org/10.1007/JHEP04%282016%29023>

Search for the Standard Model Higgs boson decaying into  $b\bar{b}$  produced in association with top quarks decaying hadronically in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector

J. High Energy Phys. **05** (2016) 160

<http://dx.doi.org/10.1007/JHEP05%282016%29160>

A search for top squarks with R-parity-violating decays to all-hadronic final states with the ATLAS detector in  $\sqrt{s} = 8$  TeV proton-proton collisions

J. High Energy Phys. **06** (2016) 067

<http://dx.doi.org/10.1007/JHEP06%282016%29067>

Measurement of the relative width difference of the  $B^0 - \bar{B}^0$  system with the ATLAS detector

J. High Energy Phys. **06** (2016) 081

<http://dx.doi.org/10.1007/JHEP06%282016%29081>

Identification of high transverse momentum top quarks in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector

J. High Energy Phys. **06** (2016) 093

<http://dx.doi.org/10.1007/JHEP06%282016%29093>

Measurement of the inclusive isolated prompt photon cross section in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector  
 J. High Energy Phys. **08** (2016) 005  
<http://dx.doi.org/10.1007/JHEP08%282016%29005>

Measurement of the double-differential high-mass Drell-Yan cross section in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector  
 J. High Energy Phys. **08** (2016) 009  
<http://dx.doi.org/10.1007/JHEP08%282016%29009>

Measurement of fiducial differential cross sections of gluon-fusion production of Higgs bosons decaying to  $WW^*\rightarrow e\nu\mu\nu$  with the ATLAS detector at  $\sqrt{s}=8$  TeV  
 J. High Energy Phys. **08** (2016) 104  
<http://dx.doi.org/10.1007/JHEP08%282016%29104>

Measurement of the CP-violating phase  $\varphi_s$  and the  $B_s^0$  meson decay width difference with  $B_s^0 \rightarrow J/\psi\varphi$  decays in ATLAS  
 J. High Energy Phys. **08** (2016) 147  
<http://dx.doi.org/10.1007/JHEP08%282016%29147>

Measurement of the angular coefficients in Z-boson events using electron and muon pairs from data taken at  $\sqrt{s}=8$  TeV with the ATLAS detector  
 J. High Energy Phys. **08** (2016) 159  
<http://dx.doi.org/10.1007/JHEP08%282016%29159>

Search for resonances in diphoton events at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 J. High Energy Phys. **09** (2016) 001  
<http://dx.doi.org/10.1007/JHEP09%282016%29001>

Measurement of total and differential  $W+W-$  production cross sections in proton-proton collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector and limits on anomalous triple-gauge-boson couplings  
 J. High Energy Phys. **09** (2016) 029  
<http://dx.doi.org/10.1007/JHEP09%282016%29029>

Measurement of jet activity in top quark events using the  $e\mu$  final state with two b-tagged jets in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector  
 J. High Energy Phys. **09** (2016) 074  
<http://dx.doi.org/10.1007/JHEP09%282016%29074>

Searches for heavy diboson resonances in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 J. High Energy Phys. **09** (2016) 173  
<http://dx.doi.org/10.1007/JHEP09%282016%29173>

Dark matter interpretations of ATLAS searches for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV proton-proton collisions  
 J. High Energy Phys. **09** (2016) 175  
<http://dx.doi.org/10.1007/JHEP09%282016%29175>

Study of hard double-parton scattering in four-jet events in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment  
 J. High Energy Phys. **11** (2016) 110  
<http://dx.doi.org/10.1007/JHEP11%282016%29110>

Search for the Standard Model Higgs boson produced by vector-boson fusion in  $\sqrt{s} = 8$  TeV pp collisions and decaying to bottom quarks with the ATLAS detector  
 J. High Energy Phys. **11** (2016) 112  
<http://dx.doi.org/10.1007/JHEP11%282016%29112>

Search for new phenomena in events with a photon and missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector  
 J. High Energy Phys. **1606** (2016) 059  
<http://dx.doi.org/10.1007/JHEP06%282016%29059>

Performance of b-Jet identification in the ATLAS experiment  
 J. Instr. **11** (2016) P04008  
<http://dx.doi.org/10.1088/1748-0221/11/04/P04008>

Beam-induced and cosmic-ray backgrounds observed in the ATLAS detector during the LHC 2012 proton-proton running period  
*J. Instr.* **11** (2016) P05013  
<http://dx.doi.org/10.1088/1748-0221/11/05/P05013>

A measurement of material in the ATLAS tracker using secondary hadronic interactions in 7 TeV pp collisions  
*J. Instr.* **11** (2016) P11020  
<http://dx.doi.org/10.1088/1748-0221/11/11/P11020>

A search for an excited muon decaying to a muon and two jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector  
*New J. Phys.* **18** (2016) 073021  
<http://dx.doi.org/10.1088/1367-2630/18/7/073021>

Search for scalar leptoquarks in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS experiment  
*New J. Phys.* **18** (2016) 093016  
<http://dx.doi.org/10.1088/1367-2630/18/9/093016>

Advanced alignment of the ATLAS tracking system  
*Nucl. Phys. B* (Proc. Suppl.) 273-275 (2016) 2533  
<http://dx.doi.org/10.1016/j.nuclphysbps.2015.09.449>

Measurement of  $D^{*\pm}$ ,  $D^{\pm}$  and  $D_s^{\pm}$  meson production cross sections in pp collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector  
*Nucl. Phys. B* **907** (2016) 717  
<http://dx.doi.org/10.1016/j.nuclphysb.2016.04.032>

Measurement of the correlations between the polar angles of leptons from top quark decays in the helicity basis at  $\sqrt{s} = 7$  TeV using the ATLAS detector  
*Phys. Rev. D* **93** (2016) 012002  
<http://dx.doi.org/10.1103/PhysRevD.93.012002>

Measurements of  $W^\pm Z$  production cross sections in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and limits on anomalous gauge boson self-couplings  
*Phys. Rev. D* **93** (2016) 029004  
<http://dx.doi.org/10.1103/PhysRevD.93.092004>

Measurement of the differential cross-section of highly boosted top quarks as a function of their transverse momentum in  $\sqrt{s} = 8$  TeV proton-proton collisions using the ATLAS detector  
*Phys. Rev. D* **93** (2016) 032009  
<http://dx.doi.org/10.1103/PhysRevD.93.032009>

Search for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector  
*Phys. Rev. D* **93** (2016) 052002  
<http://dx.doi.org/10.1103/PhysRevD.93.052002>

Measurement of jet charge in dijet events from  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector  
*Phys. Rev. D* **93** (2016) 052003  
<http://dx.doi.org/10.1103/PhysRevD.93.052003>

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## **Beenakker, W.**

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## **Bentvelsen, S.C.M.**

Het Higgs deeltje en verder - fascinerende fysica bij LHC, Stanislas College, Delft, The Netherlands, 27/01/2016

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What lies beyond the Higgs particle?, TU/e, Eindhoven, The Netherlands, 02/03/2016

Nikhef scientific programme, EU Astron, Dwingeloo, The Netherlands, 10/06/2016

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What are the elementary particles our universe is made of?, MOOC - Big History - UvA, Amsterdam, The Netherlands, 17/10/2016

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## **Boom, B.A.**

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## **Borga, A.O.**

High Energy Physics and Open Source engineering: accelerate shared knowledge, Open Source Software and Hardware Conference 2016, Den Bosch, The Netherlands, 30/11/2016

## **Brand, J. van den**

Zwaartekrachtsgolven van de botsing van twee zwarte gaten, WND Conference, Noordwijkerhout, The Netherlands, 17/12/2016

Zwaartekrachtsgolven, Science Caf\_e Deventer, Deventer, The Netherlands, 9/11/2016

Gravitational waves from binary black hole mergers, Differ, Eindhoven, The Netherlands, 27/10/2016

Einstein en zwaartekrachtsgolven, Museum Boerhaave, Leiden, The Netherlands, 24/10/2016

Gravitational waves from the merger of two black holes, Opening of the academic year, Department of Physics Amsterdam, Amsterdam, The Netherlands, 21/09/2016

Onderzoek naar zwaartekrachtgolven bij de samensmelting van twee zwarte gaten, Rotterdams Natuurkundig Genootschap, Rotterdam, The Netherlands, 20/09/2016

Black holes and gravitational waves, Urania, Hove, Belgium, 9/09/2016

De ontdekking van zwaartekrachtsgolven, Sterrenwacht Gooi en Vechtstreek, `s Graveland, The Netherlands, 8/09/2016

De ontdekking van zwaartekrachtsgolven, De nacht van kunst en wetenschap, Groningen, The Netherlands, 4/06/2016

Einstein Telescope - de ultieme faciliteit voor onderzoek naar zwaartekrachtsgolven, Limburgborrel, Den Haag, The Netherlands, 7/06/2016

Einstein Telescope - de ultieme faciliteit voor onderzoek naar zwaartekrachtsgolven, Holland at CERN, CERN, Geneva, Switzerland, 31/05/2016

Black holes and gravitational waves, Meten van NWO, Amsterdam, The Netherlands, 19/05/2016

Discovery of gravitational waves, Natuurwetenschappelijke Studievereniging, Amsterdam, The Netherlands, 12/05/2016

Discovery of gravitational waves, Orientation Physics UvA, Amsterdam, The Netherlands, 10/05/2016

Windows on the Universe: Einstein Telescope for gravitational wave detection, Hannover Messe, The Netherlands, 25/04/2016

One century of searching for gravitational waves, Hannover Messe, The Netherlands, 25/04/2016

Detection of gravitational waves from the merger of two black holes, Geel, Mol, Belgium, 22/04/2016

De ontdekking van zwaartekrachtsgolven, Amsterdamse Universiteits-Vereniging (AUV)-alumnikring natuurkunde, UvA, Amsterdam, The Netherlands, 23/04/2016

Ontdekking van zwaartekrachtsgolven, Broodje NWO, Amsterdam, The Netherlands, 7/03/2016

Hoe meet men gravitatiestraling? (How do we measure GWs?), Gravitatiestraling KNAW - Minisymposium, Amsterdam, The Netherlands, 25/02/2016

Observing gravitational waves from the merger of two black holes, VU University, Amsterdam, The Netherlands, 19/02/2016

Gravitatie en kosmologie, Delft afdeling KNWWS, Delft, The Netherlands, 16/02/2016

Recente resultaten van experimenten met LHC op CERN, Gemeentelijk Gymnasium Hilversum, The Netherlands, 27/01/ 2016

## **Decowski, M.P.**

Nobelprijs 2015 voor neutrino-oscillaties, Viva Fysica 2016, Amsterdam, The Netherlands, 29/01/2016

The Hunt for the Dark Matter Particle, Marie Curie Symposium, Nijmegen, The Netherlands, 27/05/2016

## **Filthaut, F.**

Nieuwe mogelijkheden voor de Large Hadron Collider, Bosche Chemische Kring, den Bosch, The Netherlands, 13/01/2016

Recent Developments in Fundamental Physics, TU/e Science Class, Eindhoven, The Netherlands, 02/03/2016

Computers bij experimenten in de deeltjesfysica, gastcollege TU/e, Eindhoven, The Netherlands, 10/10/2016

## **Groep, D.L.**

Showing Real Big Data - visualising data transfers for the public, Hogeschool van Amsterdam, Amsterdam, The Netherlands, 04/02/2016

Incident Response in Federations, Security Training at the DI4R Conference, Krakow, Poland, 29/09/2016

The EUGridPMA, 24th TAGPMA plenary meeting, Hamilton, Bermuda, 25/10/2016

**Heijningen, van, J.V.**

Het vroege heelal, de kosmische achtergrondstraling en gravitatiegolven, KNVWS Leeuwarden Lezing, Amsterdam, The Netherlands, 27/02/2016  
 Zwaartekrachtsgolven, Vrije Studie Lezing, Delft, The Netherlands, 18/04/2016  
 Gravitational Waves, Aperture Lecture, Maastricht, The Netherlands, 03/05/2016  
 Zwaartekrachtsgolven en kosmologie, AV Wega Lezing, Tilburg, The Netherlands, 10/05/2016  
 Zwaartekrachtsgolven en kosmologie, SWS Eemsmond Lezing, Appingedam, The Netherlands, 07/12/2016  
 Zwaartekrachtsgolven en kosmologie, Science Café Astra Alteria, Ede, The Netherlands, 12/12/2016

**Holten, van, J.W.**

Elementaire deeltjes, "Public lecture high-school students, Leiden Univ.", Leiden, The Netherlands, 15/01/2016

**Igonkina, O.**

Materie, antimaterie en de kosmische puzzel, de Avond van Wetenschap & Maatschappij, Den Haag, The Netherlands, 03/10/2016

**Jong, de, S.J.**

Gebroken Symmetrie, NSG Expo: Gebroken Symmetrie, Nijmegen, The Netherlands, 29/01/2016  
 Introduction to CERN, New Scientist visit to CERN, Geneva, Switzerland, 18/02/2016  
 Wat doe je met wiskunde, natuurkunde en scheikunde?, IMC weekend school, Nijmegen, The Netherlands, 03/04/2016  
 CERN, Huiskamerlezing, Rotterdam, The Netherlands, 09/04/2016  
 CERN, VvTP lunch lezing, TU Delft, Delft, The Netherlands, 20/04/2016  
 Het fascinerende heelal, De Kaaij, Radboud Reflects, Nijmegen, The Netherlands, 24/08/2016  
 CERN, Accelerating Science and Technology, Hello Tomorrow, Paris, France, 13/10/2016  
 (Ultra-hoogenergetische) kosmische straling, Astra Alteria lezing, Putten, The Netherlands, 28/11/2016

**Linde, F.**

Massa mysteries in de elementaire deeltjesfysica, Heerbeeck college, Best, The Netherlands, 11/01/2016  
 Neutrino's - een Nobel deeltje - Elementaire Deeltjesfysica, Studium Generale, Maastricht, The Netherlands, 18/01/2016  
 Theoretische voorspellingen - Experimentele ontdekkingen, Frontiers of Physics, Leusden, The Netherlands, 25/02/2016  
 De zoektocht naar donkere materie, KNAW Raad voor Natuur- & Sterrenkunde, Amsterdam, The Netherlands, 26/09/2016

**Mauro, de, G.**

The beauty of Cosmic Rays, Tilburg University Chaplaincy, Tilburg, The Netherlands, 28/04/2016

**Merk, M.H.M.**

Higgs en het mysterie van ontbrekende antimaterie, Rotaryclub Probus-II, Maastricht, The Netherlands, 16/03/2016  
 Higgs and the mystery of missing antimatter, Aperture students association Science Program, Maastricht, The Netherlands, 13/04/2016  
 Relativiteitstheorie en Zwaartekrachtsgolven, Rotaryclub Past-Rotarians, Kanne, Belgium, 09/05/2016  
 Cern en Large Hadron Collider experimenten, NNV VWO studenten, Amsterdam, The Netherlands, 09/09/2016  
 Higgs en het mysterie van ontbrekende antimaterie, Sterrenkunde club Astra Altera, Ede, The Netherlands, 10/10/2016  
 Recente Ontwikkelingen bij de LHC, Sterrenkundeclub stichting JC van der Meulen, Hoorn, The Netherlands, 14/10/2016

**Mulder, M.**

LHCb: het perspectief van een PhD-student, Dutch Teacher Programme 2016, Meyrin, Switzerland, 24/10/2016

**Onderwater, C.J.G.**

Einstins Ballerina, the discovery of gravitational waves,, Webinar University College Groningen, Groningen, The Netherlands, 16/02/2016  
 Echo's van de oerknal, Guestlecture Werkman College, Groningen, The Netherlands, 19/02/2016  
 Echo's van de oerknal, Guestlecture Praedinius Gymnasium, Groningen, The Netherlands, 30/05/2016  
 Deeltjesdierentuin, Zpannend Zernike, Groningen, The Netherlands, 01/10/2016  
 De aarde warmt op!, maar hoe weten we dat eigenlijk?, RGO Sustainability week, Middelharnis, The Netherlands, 21/12/2016

**Rijn, van, A.J.**

Collaboration in (astro)particle physics: a necessity, Health-RI conference, Amersfoort, The Netherlands, 01/12/2016

**Satish Kumar, S.**

Once upon a space-time..., Charney School of Marine Sciences, University of Haifa (Video Conference), Haifa, Israel, 21/05/2016  
 Discovery of Gravitational Waves, Sri Jothi higher Secondary School, Salem, India, 08/09/2016  
 Discovery of Gravitational Waves, Sri Vidhya Mandir Senior Sec. School, Ayothiyapattanam, Salem, India, 07/10/2016

**Schaaf, van der, L.S.**

The Quest for Gravitational Waves, Delft Lunchlezing, Delft, The Netherlands, 26/02/2016  
 Rimpelende Ruimtetijd meten en analyseren van zwaartekrachtsgolven, Science Café Deventer, Deventer, The Netherlands, 09/11/2016

**Schultheiss, N.G.**

Python bij deeltjesdetectie met HiSPARC: Notebooks in de klas, Woudschoten-conferentie Natuurkunde-didactiek, Noordwijkerhout, The Netherlands, 16/12/2016

**Suerink, T.C.H.**

Sneller dan het licht, Netwerk evenement, Sliedrecht, The Netherlands, 12/05/2016

**Tuning, N.**

Deeltjes en Zwaartekracht in 2016, Zin-Inn Lezing, Aalsmeer, The Netherlands, 14/12/2016

**Verkerke, W.**

Discovering the Higgs – finding the needle in the haystack, Intel International Science Education Fair, Geneva, Switzerland, 13/06/2016  
Discovering the Higgs – finding the needle in the haystack, CERN Openlab, Geneva, Switzerland, 11/07/2016

**Vries, de, J.A.**

Why is there stuff?, FYSICA 2016, Nijmegen, The Netherlands, 08/04/2016

**Vulpen, van, I.B.**

De rare wereld van elementaire deeltjes en de open mysteries, Koninklijke Nederlandse Vereniging voor Weer en Sterrenkunde, Arnhem, The Netherlands, 16/03/2016

Elementaire bouwstenen van de natuur, Guest lecture, Delft, The Netherlands, 08/04/2016

De magie van het allergrootste en het allerkleinste, Soul and Brains, Leiden, The Netherlands, 17/09/2016

De wereld van elementaire deeltjes, Weer- en sterrenkundige kring Zaanstreek, Oostzaan, The Netherlands, 27/10/2016

# Talks (invited)

**Aab, A.**

Update Of Time Distribution Studies With Non-thinned Air Shower Simulations, Auger Analysis Meeting, Karlsruhe, Germany, 27/06/2016  
 Time Distribution Studies With Non-thinned Air Shower Simulations, Auger Youngsters Meeting, Aachen, Germany, 12/09/2016  
 Obtaining the nature of primary cosmic rays from the tail of an air shower, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Agatsuma, K.**

Development of the Phase Camera for Monitoring Mirror Aberrations and Laser Sidebands, 5<sup>th</sup> Annual World Congress of Advanced Materials-2016 (WCAM-2016), Chongqing, China, 06/06/2016  
 Frontiers of the Gravitational Wave Observation, Special lecture for graduate students, Tokyo University of Science, Tokyo, Japan, 27/10/2016  
 The First Detection of Gravitational Waves and the Current Status of Detectors, Seminar for Nikuni laboratory in the physics department, Tokyo University of Science, Tokyo, Japan, 27/10/2016  
 The Front Line of the Observation of Gravitational Waves, Colloquium in the Physics Engineering Educational Program, YOKOHAMA National University, Yokohama, Japan, 31/10/2016  
 How to Reach Gravitational Wave Observation, Seminar in the physics department, The University of Tokyo, Tokyo, Japan, 01/11/2016  
 The Forefront of the Gravitational Wave Observation, Colloquium in the Physics and mathematics department, Aoyama Gakuin University, Kanagawa, Japan, 01/11/2016

**Alkofer, N.**

Quantum Gravity signatures in the Unruh effect, Workshop: Non-perturbative aspects of Quantum Field Theory, Cakovec, Croatia (Hrvatska), 05/10/2016  
 Bakel, van, N. .A.  
 Eureka - Technology Transfer at Nikhef, Seminar Institut de Física d'Altes Energies (IFAE), Barcelona, Spain, 11/01/2016

**Becker, D.**

Asymptotically Safe Quantum Gravity En route to background independence, ERG2016 conference, Trieste, Italy, 21/09/2016  
 Higher derivatives & the functional renormalization group, Quantum Gravity Seminar, University of Heidelberg, Heidelberg, Germany, 14/12/2016  
 Asymptotic Safety and higher derivative theories, Quantum gravity group seminar, Univ. Mainz, Mainz, Germany, 16/12/2016  
 Asymptotic Safety, unitarity and the theory space, Cold Quantum Coffee Seminar, University of Heidelberg, Heidelberg, Germany, 19/12/2016

**Beekveld, van, M.**

The case for the 100 GeV bino-like Dark Matter particle, TeV Particle Physics 2016, CERN, Geneva, Switzerland, 16/09/2016

**Bel, L.J.**

The LHCb Starterkit, ICHEP, Chicago, USA, 06/08/2016

**Bentvelsen, S.C.M.**

Mid-term report from the Netherlands, PECFA, CERN, The Netherlands, 24/11/2016

**Bertolini, A.**

Detection of gravitational waves, NEVAC Annual Meeting, Leiden, The Netherlands, 27/05/2016

**Bertone, V.**

APFEL: A PDF Evolution Library, REF 2016, Antwerp, Belgium, 07/11/2016  
 Neural Network Fragmentation Functions, Parton Radiation and Fragmentation from LHC to FCC-ee, Geneva, Switzerland, 21/11/2016

**Beuzekom, van, M.G.**

Hybrid pixels in LHCb, 10<sup>th</sup> International Meeting on Front-End Electronics (FEE 2016), Krakow, Poland, 01/06/2016

**Boom, B.A.**

MEMS seismometer development at Nikhef, Gravitational Wave Advanced Detector Workshop, La Biodola, Italy, 26/05/2016

**Brand, J. van den**

Sensing the strains induced by gravitational waves, FOM Veldhoven, Veldhoven, The Netherlands, 20/01/2016  
 Research Infrastructures: costs and characteristics of an underground infrastructure like E.T., 7<sup>th</sup> ET Symposium: 'First ET-LIGO 3G' workshop, Florence, Italy, 2/02/2016  
 Newtonian Noise subtraction R&D, 7<sup>th</sup> ET Symposium: 'First ET-LIGO 3G' workshop, Florence, Italy, 2/02/2016  
 Zwaartekrachtsgolven van de botsing van twee zwarte gaten, Studium Generale University Maastricht, Maastricht, The Netherlands, 8/03/2016  
 Gravitational waves: detection techniques and future facilities, Brussel, The Netherlands, 9/03/2016  
 APP - Detector R&D, Industry, AppPEC, La Sorbonne, Paris, France, 6 -7/04/2016  
 Observation of gravitational waves, NWA, Felix Meritis, Amsterdam, The Netherlands, 27/05/2016  
 Connecting black hole physics to seismic sensor networks, The connecting strength of Big Science Projects, ASTRON, Dwingeloo, The Netherlands, 10/06/2016  
 Gravitational waves from colliding black holes, RWTH Aachen, Aachen, Germany, 30/06/2016  
 GW Future Facilities, DAWN Workshop organizer, Atlanta, GA, USA, 7-8/07/2016  
 State of the art research with gravitational waves, DSPE Conference 2016, De Ruwenberg, The Netherlands, 4/10/2016  
 Onbetaalbare ontdekkingen: onderzoek met zwaartekrachtsgolven, Nacht van Descartes, Descartes Centre and Studium Generale, Utrecht University, Utrecht, The Netherlands, 25/10/2016  
 Einstein Telescope, KNAW Agenda grootschalige onderzoeksfaciliteiten, KNAW, Amsterdam, The Netherlands, 31/10/2016  
 Gravitational waves from merging black holes, Dutch Physical Society, Nuclear and particle physics, Lunteren, The Netherlands, 4/11/2016  
 De ontdekking van zwaartekrachtsgolven, Eindhovens Natuurkunde Symposium, Eindhoven, The Netherlands, 16/11/2016  
 Future facilities for gravitational wave physics, Physics and astrophysics at the extreme, University Park, PA, USA, 1/12/2016

**Breur, P.A.**

Radon background in XENON1T, NNV subsection subatomic physics, Lunteren, The Netherlands, 04/11/2016

**Bruijn, R.**

KM3NeT/ORCA, Phystat-NU, Tokyo, Japan, 01/06/2016

The KM3NeT Digital Optical Module, NNN16, International Workshop on Next Generation Nucleon Decay and Neutrino Detectors, Beijing, China, 03/11/2016

**Caron, S.**

Search for Dark Matter at the LHC, Physics@FOM, Veldhoven, The Netherlands, 19/01/2016

Future of global fits for Dark Matter, Dark Matter at the LHC workshop, Amsterdam, The Netherlands, 01/04/2016

The case for 100 GeV Bino, Dark Matter Seminar, Bonn, Germany, 21/04/2016

Dark Matter 2: The return of the SUSY WIMPs, Seminar, Univ. Groningen, Groningen, The Netherlands, 15/12/2016

**Castellijn, R.**

The CP nature of the Higgs boson, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Chan, W.S.**

Update on Tau Energy Scale Algorithm Tunings, ATLAS Tau Performance / Higgs to Leptons Workshop, Sheffield, United Kingdom, 27/10/2016

**Christakoglou, P.**

Experimental overview of collective flow with identified particles at RHIC and the LHC, Quark confinement and the hadron spectrum, Thessaloniki, Greece, 29/08/2016

Experimental overview of collective flow with identified particles at RHIC and the LHC, Zimanyi physics school, Budapest, The Netherlands, 07/12/2016

**Colasurdo, L.**

BTagging software overview, FTAG16 workshop, Bonn, Germany, 27/04/2016

Search for the Higgs boson produced in association with top quarks with the ATLAS detector, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Colijn, A.P.**

The DARWIN experiment, IDM, Sheffield, United Kingdom, 21/07/2016

The Missing Universe, Studium Generale, Maastricht, The Netherlands, 13/09/2016

**Daal, van, T.A.A.**

Parametrizing hadronic correlators, DRSTP Postgraduate School Theoretical High Energy Physics, Delfsen, The Netherlands, 26/01/2016

Gluon TMDs in the small-x limit, QCD Evolution 2016, Amsterdam, The Netherlands, 02/06/2016

Gluon TMDs for polarized targets and the small-x limit, 22<sup>nd</sup> International Spin Symposium, Champaign, USA, 27/09/2016

A simple 3D picture for gluons inside hadrons at high energies, Theory Seminar, New Mexico State University, Las Cruces, USA, 01/11/2016

**Dall'Occo, E.**

Sensor Developments for the LHCb VELO Upgrade, 4<sup>th</sup> Beam Telescope and Test Beams Workshop, LAL Orsay, France, 05/02/2016

**David, P.N.Y.**

Electroweak scale exotica with LHCb, 38<sup>th</sup> International Conference on High Energy Physics (ICHEP 2016), Chicago, USA, 05/08/2016

**Decowski, M.P.**

Detecting Collisions of Dark Matter with Ordinary Matter, FOM Veldhoven, Veldhoven, The Netherlands, 19/01/2016

The XENON1T Dark Matter Experiment, La Thuile 2016, La Thuile, Italy, 07/03/2016

DARWIN: Towards the Ultimate Dark Matter Detector, The future of dark matter searches workshop, Berkeley, CA, USA, 06/12/2016

**Dufour, L.J.I.J.**

New results in semileptonic beauty decays with LHCb, LHCP, Lund, Sweden, 16/06/2016

**Ferrari, P.**

Exploring the new energy frontier with the ATLAS detector, Physics in Veldhoven Focus session Present and Future Collider Physics: In Pursuit of New Particles and Forces, Veldhoven, The Netherlands, 20/01/2016

Higgs physics: summary and discussion, SM@LHC 2016 conference, Pittsburgh, USA, 06/05/2016

Exploring the new energy frontier with the ATLAS detector, NEDERLANDSE NATUURKUNDIGE VERENIGING annual meeting, Lunteren, The Netherlands, 04/11/2016

Searches for Heavy Higgs - MSSM searches, Higgs couplings 2016 conference, SLAC Menlo Park, USA, 09/11/2016

**Fleischer, R.**

In Pursuit of New Physics with B Decays: Theoretical Status and Prospects, Colloquium, Physics Department, Universita di Roma La Sapienza, Rome, Italy, 10/10/2016

Towards New Frontiers in High-Precision B Physics, AJB 70 Festsymposium (Prof. Andrzej Buras' 70<sup>th</sup> Birthday), Garching, Germany, 28/10/2016

**Fumagalli, J.F.**

UV (in)sensitivity of Higgs inflation, DRSTP postgraduate school in theoretical high energy physics 2016, Delfsen, The Netherlands, 26/01/2016

Predictiveness of inflation with the Higgs boson, 54<sup>th</sup> Schladming international winter school -New Trends in Particle Physics, Quantum Gravity and Cosmology-, Schladming, Austria, 24/02/2016

Renormalization group independence of single field inflationary models, Utrecht Cosmology Symposium, Utrecht, The Netherlands, 28/06/2016

Consistency and Robustness in Higgs Inflation, Helsinki Higgs forum, Helsinki, Finland, 16/12/2016

**Galea, C.F.**

Tau Lepton Reconstruction in ATLAS, The 14<sup>th</sup> International Workshop on Tau Lepton Physics, Beijing, China, 21/09/2016

**Gaunt, J.R.**

N-jettiness subtractions for QCD calculations at NNLO, SCET 2016, Hamburg, Germany, 23/03/2016

Cancellation of Glauber gluon exchange in the double Drell-Yan process, DIS 2016, Hamburg, Germany, 14/04/2016

Double parton scattering in the ultraviolet: addressing the double counting problem, QCD Evolution 2016, Amsterdam, The Netherlands, 31/05/2016

N-jettiness subtractions for QCD calculations at NNLO, Seminar at Siegen University, Siegen, Germany, 14/06/2016

Resummation of rapidity-dependent jet vetoes at NNLL': Parton Shower and Resummation Workshop 2016, Paris, France, 05/07/2016

Glauber, Underlying Event and Factorization, ESI Programme: Challenges and Concepts for Field Theory and Applications in the Era of LHC Run-2, Vienna, Austria, 19/07/2016

Double parton scattering in the ultraviolet: addressing the double counting problem, MPI@LHC 2016, San Cristobal de las Casas, Mexico, 29/11/2016

**Glaser, L.**

It's fuzzy, Colloquium Radboud University Nijmegen, Nijmegen, The Netherlands, 14/09/2016

Does Size Matter? Scaling in Non-commutative geometry, University of Nottingham, Nottingham, United Kingdom, 11/11/2016

Does Size Matter? Scaling in Non-commutative geometry, DESY, Hamburg, Germany, 29/11/2016

**Graaf, van der, H.**

The new Transmission Dynode Tynode and its applications in the Tipsy ultra-fast soft photon detector, Workshop on ps timing detectors for physics and medical applications, Kansas City, Mo, USA, 15/09/2016

Graaf, van der, H.

The Quad: a general purpose modular readout system for TPCs, 8<sup>th</sup> Symposium on Large TPCs, Paris, France, 06/12/2016

**Groep, D.L.**

The AARC CILogon-like Pilot - design and its relation to credential policies, 36<sup>th</sup> EUGridPMA plenary meeting, Bratislava, Slovakia, 15/01/2016

AARC: assurance and federation mechanisms for research and collaboration, International Symposium on Grids and Clouds ISGC Security Workshop, Taipei, Taiwan, 13/03/2016

The AARC CILogon-like TTS Pilot for Europe, Asia Pacific PMA plenary meeting, Taipei, Taiwan, 14/03/2016

The EUGridPMA and IGTF, Asia Pacific PMA plenary meeting, Taipei, Taiwan, 14/03/2016

Policy and best practice: harmonisation and its impact, TNC Networking Conference, Prague, Czech Republic, 16/06/2016

The EUGridPMA - considerations for TAGPMA and the IGTF, TAGPMA plenary meeting at the XSEDE Conference, Miami, USA, 19/07/2016

Enabling Federated Login to WLCG resources, DI4R Conference, Krakow, Poland, 28/09/2016

Accelerating Throughput - from the LHC to the World, SURFsara Super-D 2016, Amsterdam, The Netherlands, 15/12/2016

**Groot, de, N.**

Latest Higgs Physics results from the ATLAS Experiment, 16<sup>th</sup> Hellenic School and Workshop on Elementary Particle Physics and Gravity, Corfu, Greece, 09/09/2016

**Gryb, S.**

Schrödinger evolution for the universe, Quantum Foundations and the Problems of Time' workshop, Institute for Advanced Studies, Royal Fort House, University of Bristol, Bristol, United Kingdom, 19/01/2016

Preferred slicing, Conference on 'Time in cosmology', Perimeter Institute, Waterloo, Canada, 30/06/2016

Quantum evolution: a new hope for resolving the big bang, Dashed Hopes: What hasn't worked in quantum gravity (and why)?, Max Plank institute for the history of science, Berlin, Germany, 20/07/2016

**Heijningen, van, J.V.**

When will we have 3 gravitational wave detectors online? When 4?, 5<sup>th</sup> Dutch Gravitational Wave Meeting, Amsterdam, The Netherlands, 02/03/2016

**Hendriks, L.**  
Finding beyond the standard model particles using the galactic center and deep learning, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Herzog, F.**

Soft Expansion by Region and Higgs Production, Threshold Logarithms Beyond Leading Power, Edinburgh, United Kingdom, 27/01/2016

Expansion by Region and Higgs Production at N3LO, Mathematical Physics Seminar at Humboldt University Berlin, Berlin, Germany, 30/05/2016

Expansion by Region and LHC Scalar Boson Production at N3LO, Theory Seminar at DESY Hamburg, Hamburg, Germany, 06/06/2016

Theoretical Determination of the Total LHC Higgs Boson Cross Section, ICHEP 2016, Chicago, USA, 04/08/2016

N3LO Cross Sections, Precise Theory for Precise Experiments, Quy Nhon, Viet Nam, 29/09/2016

Forest Formula, IR Divergences & 2pt-functions, Future Challenges for Precision QCD, Durham, United Kingdom, 27/10/2016

**Hogenbirk, E.**

Characterization of a neutron generator for XENON1T nuclear recoil calibration, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Holten, van, J.W.**

Relativity and field theory, AiO school DRSTP, Dalfsen, The Netherlands, 25/01/2016

Extreme Mass Ratio Binaries, 5<sup>th</sup> Dutch Gravitational Wave Meeting, Amsterdam, The Netherlands, 02/03/2016

Gravitational Waves, The Discovery of Gravitational Waves, VUB, Brussel, Belgium, 09/03/2016

World-line perturbation theory, Heraeus Seminar Relativistic Geodesy, Bad Honnef, Germany, 17/03/2016

Gravitational Waves, Kavli Colloquium, Delft, The Netherlands, 30/06/2016

Dynamics of Spinning Bodies, National Seminar Theoretical Physics, Amsterdam, The Netherlands, 18/11/2016

**Hulsbergen, W.D.**

Electroweak physics and QCD in the forward direction at LHCb, Rencontres de Blois, Blois, France, 31/05/2016  
W/Z + jets and top at LHCb, QCD at LHC, Zurich, Switzerland, 22/08/2016

**Igonkina, O.**

The ATLAS Level-1 Topological Trigger Design and Operation in Run-2, TWEPP 2016, Karlsruhe, Germany, 29/09/2016  
Search for new exotic phenomena with the ATLAS detector at the LHC, New Trends 2016, Becici, Montenegro, 03/10/2016  
Charged lepton flavor violation at LHC, Charm and Beauty in Physics, Moscow, Russia, 10/11/2016

**Jaarsma, R.L.**

Hunting New Physics at the LHC High-Precision Frontier, Amsterdam Master of Physics and Astronomy Symposium 2016, Amsterdam, The Netherlands, 15/04/2016

**Jong, de, S.J.**

Detection of High Energy Cosmic Rays at the Auger Engineering Radio Array, ICHEP 2016, Chicago, U.S.A., 04/08/2016

**Kasemets, T.K.**

Double parton scattering: what (not) to expect, Quarkonia2016, Trento, Italy, 01/03/2016  
DPS: polarization, azimuthal dependence and proton size effects, Quarkonia2016, Trento, Italy, 04/03/2016  
Multiparton interactions, GDR QCD 2016, Orsay, France, 04/03/2016  
Soft Radiation at One Loop, SCET 2016, Hamburg, Germany, 22/03/2016  
Towards a theory for double parton scattering, TUM Theory Seminar, Munich, Germany, 01/09/2016  
Matching and resummation in double parton scattering, MPI@LHC 2016, San Cristobal de las Casas, Mexico, 29/11/2016

**Kittel, W.**

Hadron Correlations at Energies from GeV to TeV, Symposium Particle Production in Hadronic Collisions, One day meeting in honor of Professor Andrzej Bialas, Krakow, Poland, 25/07/2016

**Kluit, P.M.**

Measurement of cross sections and properties of the Higgs Boson in bosonic decay channels using the ATLAS detector, 24th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2016), Melbourne, Australia, 04/07/2016

**Koppenburg, P.S.**

Lepton Flavour Violation in heavy flavour decays + Lepton Flavour Universality, SWHEPPS 2016: Strategy Workshop on High-Energy Particle Physics in Switzerland, Unterägeri, Switzerland, 08/06/2016  
On pentaquark particles and their discovery at the LHCb experiment, Innsbruck Physics Colloquium, Innsbruck, Austria, 28/06/2016  
Recent highlights on heavy quarks, QCD@LHC, Zürich, Switzerland, 28/06/2016  
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**Koutoulaki, A.**

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**Laenen, E.**

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Next-to-eikonal calculations, Standard Model at the LHC, Pittsburgh, USA, 04/05/2016  
Next-to-soft radiative corrections in QCD, Stress-testing the Standard Model, Santa Barbara, USA, 24/05/2016  
Next-to-soft corrections in QCD, 50 years YITP, Stony Brook, USA, 10/10/2016  
The ubiquitous top quark, Max Planck Institute, Munich, Germany, 25/10/2016  
Quantum Chromodynamics, University of Mumbai, GIAN course, Mumbai, India, 02/11/2016  
Soft radiation in Quantum Chromodynamics, Indian Institute of Technology Bombay, Mumbai, India, 10/11/2016  
Resummation in QCD: what, why and how?, KIT, Karlsruhe, Germany, 17/11/2016  
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**Leeuwen, van, M.**

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Heavy Ions Overview, International Conference on High Energy Physics, Chicago, USA, 10/08/2016  
Lectures on the Quark Gluon Plasma at LHC, Retreat GRK2149, Korbecke, Germany, 19/09/2016  
Soft and Hard Probes of the Quark Gluon Plasma at the LHC, Seminar at Niels Bohr Institute, Copenhagen, Denmark, 04/11/2016

**Linde, F.**

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APPEC roadmap 2016, APPEC Town Meeting, Paris, France, 07/04/2016  
Astroparticle Research in Europe, Frontier objects in astrophysics & particle physics, Vulcano Island, Italy, 23/05/2016  
Astroparticle Physics, IDM 2016, Sheffield, United Kingdom, 22/07/2016  
Towards the APPEC strategy, TeV Particle Astrophysics 2016, Geneva, Switzerland, 14/09/2016  
APPEC Strategy, Cern Council, Geneva, Switzerland, 16/12/2016

**Loll, R.**

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Causal Dynamical Triangulations: The emergence of spacetime, Conference on 'Emergent properties of spacetime', CERN, Geneva, Switzerland, 20/06/2016

Time in Cosmology: A personal perspective, Conference on 'Time in cosmology', Perimeter Institute, Waterloo, Canada, 30/06/2016

Causal Dynamical Triangulations - a progress report, 21<sup>st</sup> International Conference on General Relativity and Gravitation (GR21), Columbia University, New York City, USA, 11/07/2016

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Riemann meets Quantum at the Planck scale, Riemann Conference, Universität Münster, Munster, Germany, 04/10/2016

Quantum Gravity from Causal Dynamical Triangulations, University College London, London, United Kingdom, 14/11/2016

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#### **Margutti, J.**

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#### **Martin-Benito, M.**

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Cosmological perturbations in Loop Quantum Cosmology, Cosmology Symposium, Utrecht, The Netherlands, 27/06/2016

Primordial fluctuations in Quantum Cosmology, 21<sup>st</sup> International Conference on General Relativity and Gravitation (GR21), New York City, USA, 10/07/2016

#### **Merk, M.H.M.**

Flavour Physics with LHCb, 54<sup>th</sup> International Winter Meeting on Nuclear Physics, Bormio, Italy, 27/01/2016

Flavour Physics with Beauty Particles in LHCb, Physikalisches Colloquium, Goethe Universitaet, Frankfurt am Main, Germany, 14/06/2016

#### **Metzger, W.J.**

Bose-Einstein Correlations in e+e- annihilation, Workshop on Parton Radiation and Fragmentation from LHC to FCC-ees, CERN, Geneva, Switzerland, 21/11/2016

#### **Mischke, A.**

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Results from proton-lead collisions at the LHC (multi-experiment talk), Fourth Annual Large Hadron Collider Physics (LHCP2016), Lund, Sweden, 15/06/2016

Open charm physics with heavy ions: Experimental results, VIII<sup>th</sup> International Workshop on Charm Physics (CHARM), Bologna, Italy, 05/09/2016

Hot QCD matter, Colloquium, Cyclotron Institute and Department of Physics and Astronomy, Texas A&M University, USA, 08/09/2016

Hot and dense QCD matter at the CERN-LHC, Seminar, Department of Physics and Astronomy, Rice University, Houston, USA, 09/09/2016

Open heavy flavour production in heavy-ion collisions at the CERN-LHC, 5<sup>th</sup> International Symposium on Non-equilibrium Dynamics (NeD-2016), Phuket, Thailand, Thailand, 02/11/2016

Recent heavy-ion results from the CERN-LHC, Seminar Physics of the strong interaction, Technische Universität München, Munich, Germany, 28/11/2016

#### **Mulders, P.J.**

Gluon transverse momentum dependent correlators in polarized high energy processes, XXIV International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS2016), Hamburg, Germany, 12/04/2016

The gluonic dynamics hidden in quark TMDs, workshop on Parton transverse momentum distributions at large x: a window into parton dynamics in nucleon structure within QCD, Trento, Italy, 14/04/2016

A unified picture of gluons at small x, QCD'N16, Bilbao, Spain, 14/07/2016

Low-x gluon TMDs, the dipole picture and diffraction, Diffraction 2016, Acireale (Sicily), Italy, 04/09/2016

Gluon TMDs at small x and diffractive processes, Workshop on Resummation, Evolution and Factorization (REF2016), Antwerp, Belgium, 10/11/2016

Gluon TMDs at small x and diffractive processes, workshop on 3D Parton Distributions - Path to the LHC, Frascati, Italy, 01/12/2016

#### **Onderwater, C.J.G.**

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Tests of Lepton Flavour Universality and searches for Lepton Flavor Violation at LHCb, Int. Conf. on Supersymmetry and Unification of Fundamental Interactions, Melbourne, Australia, 05/07/2016

Exotica searches with LHCb, Int. Conf. on Supersymmetry and Unification of Fundamental Interactions, Melbourne, Australia, 07/07/2016

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#### **Peitzmann, Thomas, T.**

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Electromagnetic probes in high-energy pp and AA collisions, XII Quark Confinement and the Hadron Spectrum, Thessaloniki, Greece, 02/09/2016

Performance and Upgrade of ALICE, LHC Days in Split, Split, Croatia (Hrvatska), 20/09/2016

Forward direct photons: physics motivation and the status of R&D for FoCal in ALICE, Forward Physics WG: diffraction and heavy ions, Trento, Croatia (Hrvatska), 28/09/2016

**Petraki, K.**

Bound states of symmetric and asymmetric dark matter, Warsaw Workshop on Non-Standard Dark Matter: multicomponent scenarios and beyond, Warsaw, Poland, 04/06/2016  
 Bound states in dark-matter phenomenology, Neutrino Oscillation Workshop (NOW), Otranto, Italy, 10/09/2016  
 Bound states of symmetric and asymmetric dark matter, Invisibles16 Workshop, Padova, Italy, 15/09/2016

**Proklova, N.V.**

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 Isolation scale factors using radiative Z decays, ATLAS e/gamma workshop 2016, Thessaloniki, Greece, 10/11/2016

**Raven, G.**

Real-time analysis with the LHCb trigger in Run-II, Computing in High-Energy Physics, San Francisco, USA, 10/10/2016

**Rojo, J.**

Probing electroweak symmetry breaking with Higgs pair production at the LHC, CP3, Universite Catholique de Louvain, Louvain-la-Neuve, Belgium, 14/11/2016  
 The structure of the proton and precision LHC phenomenology, Center for Theoretical Physics Seminar, MIT, Boston, USA, 28/11/2016  
 Probing electroweak symmetry breaking with Higgs pair production at the LHC, Center for the Fundamental Laws of Nature, Harvard, Boston, USA, 29/11/2016  
 NNLO PDF fits with top-quark pair differential distributions, LHC Top Quark Working Group meeting, CERN, Switzerland, 29/11/2016

**Ruijl, B.J.G.**

Towards five loop calculations in QCD, ETH Zurich Seminar, Zurich, Switzerland, 06/12/2016

**Samtleben, D.F.E.**

Hunting the Invisible - Challenges of neutrino detection in the deep sea, National eScience Symposium, Amsterdam, The Netherlands, 13/10/2016

**Satish Kumar, S.**

Spin Dynamics in General Relativity, Cardiff University, Cardiff, United Kingdom, 06/05/2016  
 Spin Dynamics in General Relativity, International Center for Theoretical Sciences, Bengaluru, India, 01/07/2016  
 Spin Dynamics in General Relativity, TIFR Center for Interdisciplinary Sciences, Hyderabad, India, 04/08/2016  
 Spin Dynamics in General Relativity, Indian Institute of Technology, Chennai, India, 08/08/2016  
 Spin Dynamics in General Relativity, Chennai Mathematical Institute, Chennai, India, 09/08/2016  
 Spin Dynamics in General Relativity, IUCAA Resource Center, University of Delhi, Delhi, India, 26/08/2016  
 Spin Dynamics in General Relativity, Tata Institute of Fundamental Research, Mumbai, India, 30/08/2016  
 Spin Dynamics in General Relativity, Indian Institute of Technology, Mumbai, India, 31/08/2016  
 Spin Dynamics in General Relativity, Black Hole Initiative Colloquium, Harvard University, Boston, USA, 06/12/2016  
 Spin Dynamics in General Relativity, Department of Physics, Massachusetts Institute of Technology, Boston, USA, 07/12/2016

**Saueressig, F.**

Asymptotically Safe Quantum Gravity, DPG Frühjahrstagung, Hamburg, Germany, 01/03/2016  
 The gravitational two-loop counterterm is asymptotically safe, Workshop Shapes of Gravity, Nijmegen, The Netherlands, 31/03/2016  
 Quantum gravity signatures in the Unruh effect, Teilchentreer, Heidelberg University, Heidelberg, Germany, 16/06/2016  
 Quantum gravity on foliated space time asymptotically safe and sound, 8<sup>th</sup> International Conference on the Exact Renormalization Group - ERG2016, Trieste, Italy, 19/09/2016

**Schouwenberg, J.**

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 Impact of partonic transverse momentum in high-energy physics, Physics@FOM 2016, Veldhoven, The Netherlands, 19/01/2016  
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High-luminosity LHC prospects with the upgraded ATLAS detector, XXIV International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS2016), Hamburg, Germany, 14/04/2016

**Stienen, B.**

SUSY-AI: Fast exclusion determination using full ATLAS results with machine learning, NNV Annual Meeting, Lunteren, The Netherlands, 04/11/2016

**Strübig, A.**

Squark/gluino searches in hadronic channels with ATLAS, LHCP 2016, Lund, Sweden, 14/06/2016  
 The ATLAS Run 2 trigger menu: Design, Performance and Operational Aspects, ICNFP 2016, Kolymbari, Greece, 08/07/2016

**Templon, J.A.**

The Dutch National e-Infrastructure, Int. Symposium on Grids and Clouds 2016, Taipei, Taiwan, 17/03/2016

**Tilburg, van, J.**

Recent hot results from LHCb, 51th Rencontres de Moriond, Electroweak Interactions and Unified Theories, La Thuile, Italy, 13/03/2016  
 Measurements of CPT violation at LHCb, Seventh Meeting on CPT and Lorentz Symmetry, Bloomington, USA, 23/06/2016

**Tiseni, A.**

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**Tsigaridas, S.**

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**Tuning, N.**

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Heavy flavour physics at high luminosity, ECFA High Luminosity LHC Experiments Workshop, Aix-Les-Bains, France, 04/10/2016

**Ueda, T.**

Towards efficient calculation of 4-loop massless propagators, Seminar (Nuclear physics), Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan, 07/01/2016

Calculating four-loop massless propagators with Forcer, ACAT 2016, Federico Santa María Technical University, Valparaiso, Chile, 18/01/2016

Forcer: a FORM program for 4-loop massless propagators, Loops and Legs 2016, Leipzig, Germany, 08/04/2016

Efficient reduction of four-loop massless propagators, CPP 2016, Hayama, Japan, 09/10/2016

Forcer: parametric reduction of 4-loop massless propagators, Seminar in Theoretical Particle Physics, University of Zurich, Zurich, Switzerland, 25/10/2016

**Van Den Broeck, C.F.F.**

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The direct detection of gravitational waves: The first discovery, and what the future might bring, Colloquium, Lund, Sweden, 08/03/2016

Tests of general relativity with GW150914, The First Observation of a Binary Black Hole Merger: Status and Future Prospects, Hannover, Germany, 26/05/2016

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Science targets for 3<sup>rd</sup> generation ground-based gravitational wave observatories, Gravitational Waves Physics and Astronomy Workshop, Cape Cod, Massachusetts, USA, 15/06/2016

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Tests of general relativity with gravitational waves, TeVPA 2016, CERN, Switzerland, 12/09/2016

Advanced Virgo status and tests of general relativity with gravitational waves, 26<sup>th</sup> Workshop on General Relativity and Gravitation in Japan, Osaka, Japan, 24/10/2016

Constraining the neutron star equation of state with gravitational wave signals from coalescing binary neutron stars, Astrophysics in the Era of Gravitational Wave and Multimessenger Observations, Annapolis, Maryland, USA, 09/11/2016

Constraining the neutron star equation of state with gravitational wave signals from coalescing binaries, Physics and Astrophysics at the Extreme, State College, Pennsylvania, USA, 01/12/2016

Four ways of doing cosmography with gravitational waves, Physics and Astrophysics at the Extreme, State College, Pennsylvania, USA, 03/12/2016

**Vankov, P.**

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**Verheyen, R.**

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**Verkerke, W.**

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Constraints on Higgs couplings from a combination of ATLAS and CMS measurements, Niels Bohr Institute, Copenhagen, Denmark, 26/01/2016

Constraints on Higgs couplings from a combination of ATLAS and CMS measurements, Queen Mary University London, London, UK, 12/02/2016

Profile Likelihood Fits and systematic uncertainties, 4th French School of Statistics, Autrans, France, 03/06/2016

**Vermaseren, J.A.M.**

FORM, Diagrams and Topologies, Loops and Legs 2016, Leipzig, Germany, 28/04/2016

Automated Calculations, Colloquium, Madrid, Spain, 26/05/2016

At the limits of what is possible, CAN symposium, Eindhoven, The Netherlands, 01/06/2016

My experiences with Shimizu-san, CPP2016, Hayama, Japan, 10/10/2016

**Vink, W.E.W.**

LHCb Scintillating Fiber detector front end electronics design and quality assurance, TWEPP 2016, Karlsruhe, Germany, 28/09/2016

**Vis, van de, J.M.**

Higgs stability during inflation and preheating, DRSTP AIO school, Dalfsen, The Netherlands, 02/02/2016

Higgs stability during preheating and vacuum dependence, Helsinki Higgs Forum, Helsinki, Finland, 16/12/2016

**Vries, de, J.**

P, CP, and CPT violation in Chiral Effective Field Theory, Seminar university of Bonn, Bonn, The Netherlands, 10/03/2016

Electric Dipole Moments and the search for new CP violation, Seminar PSI, Villigen, Switzerland, 12/04/2016

Vries, de, J.A., CP violation in mixing at LHCb, BEAUTY 2016, Marseille, France, 02/05/2016

Constraining the top-Higgs sector of the Standard Model effective field theory, Seminar CP3 Louvain, Louvain, Belgium, 15/06/2016

Effective Field Theories for EDMs: from TeV to nuclear scales, Int. workshop on the nuclear physics of Sakharov, Trento, Italy, 25/07/2016

An effective approach towards hadronic CP violation, Int. workshop on Quark confinement and the hadron spectrum XII, Thessaloniki, Greece, 30/08/2016

Effective field theories and low-energy CP violation, Int. workshop on Symmetry test in nuclei and atoms, Kavli institute for theoretical physics, Santa Barbara, USA, 22/09/2016

P and CP violation in few-body systems, Seminar, Los Alamos National Laboratory, Los Alamos, USA, 11/10/2016

Discrete symmetry violations and (chiral) EFT, workshop Advances in EFTs Forschungszentrum Jülich, Jülich, Germany, 08/11/2016

**Vryonidou, E.**

ttH in the EFT at NLO in QCD, LHC Higgs Cross-section Working Group workshop, CERN, Switzerland, 13/10/2016  
op EFT in MCs: the case of ttV and ttH, LHC Top Working Group meeting, CERN, Switzerland, 23/11/2016  
Latest from HH theory predictions, CMS HH workshop, Louvain la neuve, Belgium, 08/12/2016  
Precision in EFT studies for top quark physics, Seminar at MPI Munich, Munich, Germany, 13/12/2016

**Vulpen, van, I.B.**

The world of elementary particles, NEVAC symposium, leiden, The Netherlands, 27/05/2016  
Elementaire deeltjes, zomerschool programmeren, Amsterdam, The Netherlands, 06/07/2016  
What's going on at the Large Hadron Collider, Opening academic year Institute of Physics UvA, Amsterdam, The Netherlands, 21/09/2016  
So, where are those new particles ?, Colloquium Groningen, Groningen, The Netherlands, 29/09/2016  
Computational thinking in the physics curriculum, ICAB conference, Delft, The Netherlands, 09/11/2016

**Wit, de, B.**

Open problems and outlook, Symposium 'Celebrating Supergravity at 40', Geneva, Switzerland, 24/06/2016  
The c-map beyond the classical level, Workshop 'Supergravity: what next?', Florence, Italy, 08/09/2016  
Striving for maximal supersymmetry, Anniversary Symposium C.N. Yang Institutue for Theoretical Physics, New York, USA, 10/10/2016  
Exact results for the STU model, Indian String Meeting 2016, Pune, India, 16/12/2016  
On conformal supergravities in four space-time dimensions, ISSER, Pune, India, 20/12/2016

**Zeune, L.**

Impact of Jet Veto Resummation on SUSY Searches, SCET 2016, Hamburg, Germany, 23/03/2016  
MSSM Higgs Interpretations after LHC Run 1, SUSY 2016, Melbourne, Australia, 04/07/2016  
Impact of Jet Veto Resummation on Slepton Searches, SUSY 2016, Melbourne, Australia, 05/07/2016  
Resummation for Multidifferential Cross Sections, ESI workshop on Challenges and Concepts for Field Theory and Applications in the Era of LHC Run-2, Vienna, Austria, 21/07/2016

# Posters

**Alkofer, N.**

Spectral Dimensions from the Spectral Action, 54. Internationale Universitatswochen fur Theoretische Physik (54<sup>th</sup> Winter School), Schladming, Austria, 21/02/2016  
 Quantum Gravity Signatures in the Unruh Effect: Theory, Conference ERG 2016, Trieste, Italy, 19/09/2016

**Bel, L.J., for the LHCb Collaboration**

Time-dependent C\!P-violation measurements in  $B^0 \rightarrow D^+ D^-$  decays at LHCb, ICHEP, Chicago, USA, 06/08/2016

**Beuzekom, van, M.G., on behalf of the LHCb VELO upgrade group**

The VeloPix ASIC for the LHCb VELO Upgrade, Pixel 2016 (8<sup>th</sup> International Workshop on Semiconductor Pixel Detectors for Particles and Imaging), Sestri Levante, Italy, 08/09/2016

**Dall'Occo, E.**

Edge Studies on sensors for the LHCb VELO Upgrade, First Barcelona Techno Week , Barcelona, Spain, 11/07/2016

**Doni, M., et al.**

A silicon detector in edge-on configuration for (spectral) computed tomography: experimental setup, simulation and reconstruction algorithm, 8<sup>th</sup> International Workshop on Semiconductor Pixel Detectors for Particles and Imaging, Sestri Levante (Genova), Italy, 05/09/2016

**Hansson, C.**

The DyTest setup: A UHV system for development of next generation detector technology, NEVAC Leiden University, Leiden, Netherlands Antilles, 27/05/2016

The Dynode: a new vacuum electron multiplier for a new generation of particle detectors, Imaging 2016 Chalmers University of Technology, Stockholm, Sweden, 15/06/2016

The Tynode: a new vacuum electron multiplier for ultrafast particle detectors, IWoRID 2016, Barcelona, Spain, 04/07/2016

**Heijden, van der, B.W.**

SPIDR a General-Purpose Readout System for Pixel ASICs, Karlsruhe Institute of Technology, Karlsruhe, Germany, 26/09/2016

**Hennes, E.**

130 years of Michelson Interferometers, from 1 cm to 1 million km, DSPE Conf. on precision Mechatronics, Sint-Michielsgestel, The Netherlands, 04/10/2016

**Hogenbirk, E.**

XAMS: A dual-phase liquid xenon TPC for direct dark matter detection R&D, FOM Physics@Veldhoven, Veldhoven, The Netherlands, 19/01/2016

**Keijser, J.J., et al.**

The Machine/Job Features mechanism, CHEP2016, San Francisco, USA, 13/10/2016

**Melis, K.W.**

Performance of the First KM3NeT Detection Unit, Neutrino 2016, London, United Kingdom, 05/07/2016

**Prodanović, V.**

Thin MEMS films for electron multiplication in a timed photon counter, ICT.OPEN 2016, Amersfoort, The Netherlands, 21/03/2016  
 Application of ALD alumina membranes for timed photon counter, ALD 2016, Dublin, Ireland, 24/07/2016

**Sabato, G., et al.**

Search for invisible decays of the Higgs boson produced in association with a Z boson at  $\sqrt{s}=13\text{TeV}$  with the ATLAS detector at the LHC, SLAC Summer Institute 2016, Stanford, USA, 17/08/2016  
 ATLAS Fast Physics Monitoring: TADA, CHEP 2016, San Francisco, USA, 11/10/2016

**Satish Kumar, S.**

Dynamics of spinning objects in curved space-time, 609 WE-Heraeus-Seminar, Physikzentrum, Bad Honnef, Germany, 15/03/2016

**Sinsheimer, J.**

The Tynode: a new vacuum electron multiplier for ultrafast oixelised particle detectors, IEEE/NSS Conference, Straatsburg, France, 03/11/2016

**Templon, J.A., et al**

Analysis of empty ATLAS pilot jobs, CHEP 2016, San Francisco, USA, 12/10/2016

**Theulings, A.M.M.G., et al.**

Design of a miniaturised photomultiplier using Monte Carlo simulations, LEELIS-II workshop, Science Park Congress Center, Amsterdam, The Netherlands, 10/11/2016

**Vis, van de, J.M.**

Stability of the Higgs, now and in the early universe, Science World, Vancouver, Canada, 23/06/2016

**Vries, de, J.A., for the LHCb collaboration**

Measurement of the Semileptonic CP asymmetry in neutral  $b_{ds}$  mixing, SLAC, Stanford, USA, 17/08/2016

# Master Program at Nikhef

All five partner universities (UU, UvA, VU, RU and RUG) offer a two-year Master program focused on the particle physics research done at Nikhef. In the first year, the program typically consists of lectures on Particle and Astroparticle Physics. These lectures include a solid introduction to the Standard Model, physics beyond the Standard Model, cosmology, quantum field theory, general relativity, CP violation, gravitational waves etc., as well as advanced experimental methods like statistical data analysis, particle detection, and a C++ course. The various aspects of experimental particle physics are combined in a semester-long project, and the past academic year a floating (and self-adjusting) muon scintillation detector was built (see Fig. 1). There were a few changes in the program: the VU and UvA MSc programs were officially joined in a ‘joint degree’ at the beginning of the 2016/2017 academic year. Perhaps as a result, UvA/VU’s GRAPPA program also saw a record-setting 33 first year MSc students enter this year, all of these students follow Nikhef’s particle physics lectures and about half are expected to also do a research project at Nikhef. The year-long research project is done in the second year of the Master. More than 20 students graduated on Nikhef-research-related projects in 2016 (see table below).

Date	Name	Title	Supervisor	Univ.
15-12-2016	D. Venhoek	Quantum vacua in curved spacetime	W. Beenakker	RUN
01-12-2016	M. Roelfs	On the eigenvalue distribution of the SYK model	K.Papadodimas	RUG
03-11-2016	M. Vermeulen	Calcium Enrichment for the Study of Neutrinoless Double Beta Decay	N. de Groot	RUN
19-09-2016	R. Kappert	Electron identification efficiency in $B_s^0 \rightarrow e\mu$	C.J.G. Onderwater	RUG
15-09-2016	J. Hussels	Molecular hyperfine structure and the electron EDM	S. Hoekstra	RUG
09-09-2016	D. van den Elzen	The link between a vacuum diagram and the renormalization group equation	W. Beenakker	RUN
31-08-2016	D. Leermakers	D*+ meson measurement in proton-proton collisions at $\sqrt{s}=8$ TeV with the ALICE detector	A. Mischke	UU
30-08-2016	T. van Daalen	Bridging the Mass Gap - Probing Compressed Electroweak Supersymmetry at the Large Hadron Collider	W. Verkerke	UvA/VU
26-08-2016	H. van der Pluijm	'On the interpretation of the quantum wave function'	R. Kleiss	RUNn
24-08-2016	R.L. Jaarsma	New Strategy to Extract the CP-violating Phase $\phi_i$ from $B_s \rightarrow K-K+$	R. Fleischer	UvA/VU
16-08-2016	M. Sas	Neutral Mesons & Direct Photon Flow	Th. Peitzmann	UU
12-08-2016	J.M. Goldstein	Reliability of the Parameterised Test of General Relativity on GW150914 and GW151226	C. Van Den Broeck	UvA/VU
01-08-2016	J.G. Bakker	Towards an effective field theory for proton decay	R.G.E. Timmermans	RUG
01-08-2016	F. Oosterhof	Neutron-antineutron oscillations in chiral perturbation theory (Lorentz prize Theoretical Physics 2015/16)	R.G.E. Timmermans	RUG
24-07-2016	J.S. Sinnenhe Damsté	Next-to-soft techniques in collider physics	E.L.M.P. Laenen	UvA/VU
18-07-2016	F. Versteegen	Quantum Gravity corrections to the Unruh effect	F. Saueressig	RUNn
15-07-2016	R. Albers	Event shapes in electron-positron annihilation at NNLO accuracy	E.L.M.P. Laenen	UvA/VU
14-07-2016	D. Schenk	Study of Modulations in Radioactive Decay	A.P. Colijn	UvA/VU
07-07-2016	A. Topçuoğlu	CUDA-Based Trigger System For The XENON Experiment	M.P. Decowski	UvA/VU
02-07-2016	J.B. Zonneveld	Dependence of B meson fragmentation fraction ratio $f_S/f_D$ on centre-of-mass energy	I. van Vulpen	UvA/VU
28-06-2016	C. Ligtenberg	Scattering of polarised W bosons: Measuring the polarised W bosons - Higgs coupling with ATLAS using charged lepton observables	B. van Eijk	UvA/VU
J23-06-2016	M.M.A. Dietze	Proton Radiography: Prototype Development Towards Clinical Application	E. Koffeman	UvA/VU
16-06-2016	M.A. Pronk	The Higgs boson coupling to polarised W bosons in vector boson fusion	B. van Eijk	UvA/VU
08-05-2016	T. Klaver	Construction and analysis of a proton radiography setup using Timepix based time projection chambers for tracking	E. Koffeman	UvA/VU
09-02-2016	M. van Beekveld	Possible Indirect Detection of Dark Matter and its impact on LHC Supersymmetry searches	S. Caron & W. Beenakker	RUN
31-01-2016	J.P. Veenkamp	A Precision Optical Calibration Module for IceCube-Gen2	M.P. Decowski	UvA/VU
- 11-2016	B. Stienen	Generalising LHC Exclusion Limits using Machine Learning	S. Caron	RUN
- 2016	A. Condorelli	A new trigger system for the radio detection	Ch. Timmermans	RUN

Table 1. Partial list of MSc theses written on Nikhef-research related projects, listing only the projects completed at RUG and UvA/VU. A similar number of projects were also completed at UU and RU.



Figure 1. As part of the MSc course 'Nikhef project', students built an autonomous cosmic ray muon scintillator detector that was tested in the waters around Nikhef (Photo credit: Wesley Poland).

## MT Apprentices at Nikhef

Date	Name	School	Subject / Title	Supervisor
22-01-2016	Sanne Zijm	MBO ROC van Amsterdam	Third year traineeship	Oscar van Petten
22-01-2016	Keke de Jonge	MBO Leidse instrumentmakers School	Third year traineeship	Michiel Jaspers
28-01-2016	Maarten den Ouden, Teun Westeneng & Demy Albers	Windesheim Hogeschool Zwolle	DOMMan (KM3Net DOM Assembly tool)	Jesse van Dongen
29-01-2016	Lizette Lamers	Fontys Hogeschool Eindhoven	Thermal characterization of the next generation particle tracker at Cern.	Berend Munneke
05-04-2016	Jeroen Frerejean	Hogeschool van Amsterdam	Prototyping of the automated positioning system for read out chips	Rob Walet
24-04-2016	Tessa de Vries	Hogeschool van Amsterdam	Warme CO2 koeling voor VELO modules	Krista de Roo & Patrick Werneke
18-06-2016	Folkert Ravestein	MBO ROC van Amsterdam	KM3NeT VEOC Test Tooling	Oscar van Petten
23-06-2016	Meeuwis van der Born	Hogeschool van Amsterdam	Realization of the insulation-foam Injection setup for the read out box	Rob Walet
24-06-2016	Jasper van der Werf	Hogeschool van Amsterdam	Design validation of the water-cooling system for the read out electronics	Rob Walet
27-06-2016	Patrick den Dekker	Fontys Hogeschool Eindhoven	Performance of an improved design folded pendulum accelerometer	Eric Hennes
29-06-2016	Kevin Malak	Saxion Hogeschool Enschede	Thermal optimization of the heat distribution and the moisture in the next generation particle tracker at Cern.	Berend Munneke
10-07-2016	Jelle van der Werff	MBO Leidse instrumentmakers School	Second year traineeship	Michiel Jaspers & Dimitri John
14-11-2016	Max Zoer	Hermann Wesselink College Amstelveen	Snuffelstage	Marco Kraan

Table 1. Apprentices of the Mechanical Technology group.

# Grants

The table shows from top to bottom grants awarded in 2016, running grants and completed grants, awarded in earlier years, including their financial envelope, running period and –if not the FOM institute– the name of the Nikhef partner university via which the grants have been obtained. FOM programmes and the LHC upgrade investment grant are not included in the table. More information on some the grants of 2016 can be found in section ‘Awards and grants’. The year 2016 has been successful again: 5.7 M€ has been acquired from a variety of funding channels (FOM, NWO, Horizon2020), be it slightly less than in 2015 (7 M€).

Awarded						
leader	title	source	period	budget (K€)	partner	
Merk / Fleischer	Very rare beauty decays: a magnifying glass for quantum physics	FOM/Pr	2017–2021	504		
Van den Brand	FOM Valorisatieprijs 2015	FOM/val	2016–2018	235	VU	
Van den Brand	Studies with seismic sensors and long-range communication	HTSM-TKI	2016–2017	230	VU	
Du Pree	VIDI: Higgs from Z to A	NWO	2017–2022	800		
Igonkina	VICI: Leptons that have created the world	NWO	2016–2021	1500		
Kooijman	AdG: Chromium (PI: Jennifer Thomas, UCL, UK)	EU/ERC	2016–2021	1109		
Groep	AARC-2: Authentication and Authorisation for Research and Collaboration	EU	2017–2019	236		
Groep	AENEAS: Advanced European Network of E-infrastructures for Astronomy with the SKA	EU	2017–2019	67		
M. de Jong	KM3NeT 2.0 (Preparatory Phase, Nikhef is Coordinator)	EU	2017–2019	786		
Van den Brand	Next generation seismic equipment: Lora enabled seismic sensors	Shell	2016–2017	269	VU	
<b>Total</b>				<b>5,736</b>		
Running						
leader	title	source	period	budget (K€)	partner	
Igonkina	Search for tau decays to a muon and a photon to understand the lack of anti-matter in the universe	FOM/Pr	2012–2017	400		
Peitzmann	Thermal photon measurements in ALICE: probing the initial temperature of the quark-gluon plasma	FOM/Pr	2012–2017	394	UU	
Mulders	Quantum chromodynamics at work in the Higgs sector	FOM/Pr	2012–2017	379	VU	
Postma	Keeping track of time during inflation	FOM/Pr	2012–2017	385		
Van Eijk/Bentvelsen	Splitting the Higgs: the connection to dark matter	FOM/Pr	2013–2017	400		
Filthaut/ N. de Groot	Higgs as a portal to new physics	FOM/Pr	2013–2017	396	RU	
Mischke	A charming way to disentangle initial- and final-state effects at the LHC	FOM/Pr	2013–2017	270	UU	
Ferrari	CP violation in the Higgs sector	FOM/Pr	2014–2018	396		
Saueressig	Black hole dynamics in asymptotically safe quantum gravity	FOM/Pr	2014–2018	398	RU	
Van den Broecke	The discovery of gravitational waves with Advanced Virgo and LIGO	FOM/Pr	2015–2019	404		
Peitzmann	Solving the direct photon puzzle in heavy-ion reactions with direct photon interferometry	FOM/Pr	2016–2020	400	UU	
Vreeswijk /Laenen	Top spin	FOM/Pr	2016–2020	468	UvA	
Linde	Tiling appointment	FOM/v	2013–2017	326		
(Various)	FOM/v projects	FOM/v	2013–2017	425	RU	
Van den Brand	Wireless seismic sensors	FOM/IPP	2013–2017	256		
Bentvelsen	Director's budget	FOM	2015–2019	500		
Van den Brand	Field studies with seismic and gravity-gradient sensor networks for gravitational waves physics and oil-and-gas exploration	FOM-HTSM	2015–2019	332	VU	
Van Tilburg	VIDI: The high-precision frontier in beauty and charm decays	NWO	2013–2018	800		
Zeune	VENI: Towards realistic predictions for new physics searches at the LHC	NWO	2015–2018	249		

De Vries	VENI: Heart of Darkness: how to unravel the nature of dark matter	NWO	2016–2019	222	
Grelli	VIDI: The hottest place in the Universe	NWO	2015–2019	800	UU
Petraki	VIDI: Deciphering the dark matter code	NWO	2016–2020	800	
Snellings	VICI: A new state of matter: The Quark Gluon Plasma	NWO	2012–2016	1,500	UU
Mischke	VICI: Tomography of the Quark–Gluon Plasma – beauty quarks as a key probe	NWO	2015–2020	1,500	UU
Tunnell	Giving pandas a ROOT to chew on: Modern Big Data front and backends in the hunt for Dark Matter	NLeSC	2015–2016	50	(in kind)
Samtleben	Real-time detection of neutrinos from the distant Universe	NLeSC	2015–2016	50	(in kind)
Caron	iDark: The intelligent Dark Matter Survey	NLeSC	2016–2019	498	RU (250 in-kind)
Verkerke	Automated Parallel Calculation of Collaborative Statistical Models	NLeSC	2016–2019	491	(250 in-kind)
Van Bakel	SENSEIS: Silent sensors for stellar echo's and seismic surveys	STW	2014–2019	495	UT
PDP group	Contribution to the national e-infrastructure	SURFsara	2013–2015	2,895	
P2IP	Knowledge–2–knowledge seminars rondon Single Quantum Imaging	RVO	2015–2016	84	
Van Eijk	HiSpac – ‘betadecanen’	Univ.	2014–2017	170	
Laenen	HIGGSTOOLS: The Higgs quest – exploring electroweak symmetry breaking at the LHC	EU	2014–2017	251	
Van den Brand	ELITES: ET–LCGT Interferometric Telescopes: Exchange of Scientists	EU	2012–2016	32	VU
Hessey / Visser	INFIERI: INtelligent Fast Interconnected and Efficient Devices for Frontier Exploitation in Research and Industry	EU	2013–2017	404	
Mulders	AdG: Quantum Chromodynamics at Work	EU/ERC	2013–2018	2,069	VU
Van der Graaf	AdG: MEMS-made Electron Emission Membranes	EU/ERC	2013–2018	2,396	
Vermaseren	AdG: Solving High Energy Physics Equations using Monte Carlo Gaming Techniques – HEPGAME	EU/ERC	2013–2018	1,739	
Groep	EGI Engage: Engaging the EGI Community towards an Open Science Commons	EU	2015–2018	156	
Groep	EGI Operational security	EGI	2016–2018	128	
Berge / Heijboer	ASTERICS: Astronomy ESFRI and Research Infrastructure Cluster	EU	2015–2018	364	UvA
Van Rijn	HNSciCloud: Helix Nebula – The Science Cloud	EU	2016–2018	233	
<b>Total</b>				<b>23,347</b>	
<b>Completed</b>					
leader	title	source	period	budget (K€)	partner
Mischke	Charm content in jets	FOM/Pr	2011–2016	398	UU
Van den Broecke	Binary black holes as laboratories for fundamental physics	FOM/Pr	2011–2016	354	
P. de Jong	Mind the gap! Generalizing dark matter searches at the LHC.	FOM/Pr	2011–2016	264	
P. de Jong	VICI: Between bottom and top: supersymmetry searches with flavour	NWO	2009–2016	1,250	
Van den Brand	Advanced Virgo – Probing the dynamics of spacetime	NWO	2012–2016	2,000	VU
Grelli	VENI: Research into a new state of matter	NWO	2012–2016	250	UU
Igonkina	VIDI: Lepton flavor violation: the key towards a matter dominated universe	NWO	2011–2016	800	
Visser	New Detector Systems for Biomedical Imaging (together with Amolf)	STW	2012–2016	300	
Butter	HYPERGRAV: The last piece of the puzzle: Off-shell hypermultiplets in string theory and complex geometry	EU	2014–2016	183	
De Wit	AdG: Supersymmetry: a window to non-perturbative physics	EU/ERC	2010–2016	1,910	UU
<b>Total</b>				<b>7,709</b>	

# Personnel

<b>Directie Nikhef</b>			
Bentvelsen	prof.dr.	S.C.M. (Stan)	FOM
Braam van Vloten	MSc.	P. van (Pieter)	FOM
Koffeman	prof.dr.ir.	E.N. (Els)	FOM
Rijn	drs.	A.J. van (Arjen)	FOM
<b>Nikhef Staf Algemeen</b>			
Engelen	prof.dr.	J.J. (Jos)	UvA
Kleuver	drs.	J.J. de (Job)	FOM
Klopping	ir.	R. (Rob)	FOM
Visser	dr.	J. (Jan)	FOM
Wiggers	dr.	L.W. (Leo)	overig
Echtelt	ing.	H.J.B. van (Joost)	FOM
Rijken		C. (Kees)	FOM
<b>ATLAS</b>			
Alderweireldt	dr.	S.C. (Sara)	FOM
Angelozzi	MSc.	I. (Ivan)	FOM
Bakker	MSc.	P.J.C. (Pepijn)	FOM
Bedognetti	MSc.	M. (Matteo)	FOM
Beemster	MSc.	L.J. (Lars)	overig
Berge	dr.	D. (David)	UvA
Bobbink	dr.	G.J. (Gerjan)	FOM
Brenner	MSc.	L. (Lydia)	FOM
Bruni	MSc.	L.S. (Lucrezia)	UT
Butti	MSc.	P. (Pierfrancesco)	overig
Caron	dr.	S. (Sascha)	RU
Castelijn	MSc.	R.J.A.M. (Remco)	FOM
Chan	BSc	W.S. (Terry)	FOM
Colasurdo	MSc.	L. (Luca)	FOM
Deigaard	dr.	I. (Ingrid)	overig
Duda	dr.	D. (Dominik)	FOM
Fabiani	MSc.	V. (Veronica)	FOM
Ferrari	dr.	P. (Pamela)	FOM
Filthaut	dr.	F. (Frank)	RU
Galea	dr.	C.F. (Cristina)	FOM
Groot	prof.dr.	N. de (Nicolo)	RU
Heijhoff	MSc.	K. (Kevin)	overig
Igonkina	prof.dr.	O.B. (Olga)	FOM
Jong	prof.dr.ir.	P.J. de (Paul)	UvA
Kluit	dr.drs.ir.	P.M. (Peter)	FOM
Konig	dr.	A.C. (Adriaan)	RU
Koutoulaki	MSc.	A. (Afroditi)	FOM
Meyer	MSc.	J. (Jochen)	FOM
Morgenstern	dr.	M.M. (Marcus)	FOM
Nektarijevic	dr.	S. (Snezana)	FOM
Oosterhof - Meij		J.E.G. (Annelies)	FOM
Oussoren	dr.	K.P. (Koen)	overig
Pedraza Diaz	MSc.	L. (Lucia)	overig

<b>LHCb</b>			
Ali	MSc.	S. (Suvayu)	overig
Archilli	MSc.	F. (Flavio)	FOM
Bel	MSc.	L.J. (Lennaert)	FOM
Benson	dr.	S.H. (Sean)	FOM
Ciezarek	dr.	G.M. (Greg)	FOM
Dall'Occo	MSc.	E. (Elena)	FOM
David	dr.	P.N.Y. (Pieter)	
Dufour	MSc.	L.J.I.J. (Laurent)	FOM
Feo Pereira Rivello Carvalho	MSc.	M. (Mauricio)	FOM
Govorkova	MSc.	E. (Katya)	FOM
Hulsbergen	dr.	W.D. (Wouter)	FOM
Jans	dr.	E. (Eddy)	FOM
Koppenburg	dr.	P.S. (Patrick)	FOM
Merk	prof.dr.	M.H.M. (Marcel)	FOM
Mulder	MSc.	M. (Mick)	FOM
Onderwater	dr.ir.	C.J.G. (Gerco)	RUG
Pellegrino	prof.dr.	A. (Antonio)	FOM
Raven	prof.dr.	H.G. (Gerhard)	VU
Syropoulos	MSc.	V. (Vasilis)	FOM
Tilburg	dr.	J.A.N. van (Jeroen)	FOM
Tuning	dr.	N. (Niels)	FOM
Veghel	MSc.	M.C. van (Maarten)	FOM
Vries	MSc.	J.A. de (Jacco)	FOM
Wilschut	prof.dr.	H.W.E.M. (Hans)	RUG
<b>ALICE</b>			
Bedda	dr.	C. (Cristina)	overig

Caliva	MSc.	A. (Alberto)	FOM
Christakoglou	dr.	P. (Panos)	FOM
Deplano	dr.	C. (Caterina)	FOM
Grelli	dr.	A. (Alessandro)	UU
Jaelani	MSc.	S. (Syaefudin)	UU
Keijdener	MSc.	D.L.D. (Darius)	UU
Khabanova	MSc.	Z. (Zhanna)	FOM
Kofarago	MSc.	M. (Monika)	UU
Kuijer	dr.	P.G. (Paul)	FOM
Leeuwen	dr.ir.	M. van (Marco)	FOM
Leogrande	MSc.	E. (Emilia)	UU
Lodato	MSc.	D.F. (Davide)	UU
Maarel	MSc.	J. van der (Jasper)	FOM
Margutti	MSc.	J. (Jacopo)	FOM
Mischke	dr.	A. (Andre)	UU
Mohammadi	MSc.	N. (Naghmeh)	UU
Peitzmann	prof.dr.	T. (Thomas)	UU
Richert	dr.	T.O.H. (Tuva)	FOM
Sas	MSc.	M.H.P.A. (Mike)	FOM
Snellings	prof.dr.	R.J.M. (Raimond)	UU
Trzeciak	dr.	B.A. (Barbara)	overig
Veen	MSc.	A.M. (Annelies)	FOM
Vigolo	MSc.	S. (Sonia)	overig
Wang	MSc.	H. (Hongkai)	UU
Zhang	MSc.	C. (Chunhui)	FOM
<b>Neutrino Telescopes</b>			
Bormuth	MSc.	R. (Robert)	UL
Bruijn	dr.	R. (Ronald)	UvA
Eijk	dr.	D. van (Daan)	FOM
Heijboer	dr.	A.J. (Aart)	FOM
Jong	prof.dr.	M. de (Maarten)	FOM
Jongen	MSc.	M.H.G. (Martijn)	FOM
Kooijman	prof.dr.	P.M. (Paul)	UvA
Melis	MSc.	K.W. (Karel)	FOM
Samtleben	dr.	D.F.E. (Dorothea)	UL
Steijger	dr.	J.J.M. (Jos)	FOM
Wolf	dr.	E. de (Els)	UvA
<b>Gravitational Waves</b>			
Agathos	MSc.	M. (Michail)	overig
Agatsuma	dr.	K. (Kazuhiro)	FOM
Bertolini	dr.	A. (Alessandro)	FOM
Boom	MSc.	B.A. (Boris)	FOM
Brand	prof.dr.ing.	J.F.J. van den (Jo)	VU
Bulten	dr.	H.J. (Henk Jan)	VU
Ghosh	dr.	A. (Archisman)	FOM
Heijningen	ir.	J.V. van (Joris)	FOM
Jonker	drs.	R.J.G. (Reinier)	overig

Koley	MSc.	S. (Soumen)	FOM
Meidam	MSc.	J. (Jeroen)	FOM
Nelemans	prof.dr.	G.A. (Gijs)	RU
Schaaf	MSc.	L. van der (Laura)	FOM
Tsang	MSc.	K.W. (Ka Wa)	FOM
Van Den Broeck	dr.	C.F. (Chris)	FOM
<b>Cosmic Rays</b>			
Aab	MSc.	A. (Alex)	overig
Canfora	MSc.	F. (Fabrizia)	FOM
Falcke	prof.dr.	H. (Heino)	RU
Horandel	dr.	J.R. (Jörg)	RU
Jong	prof.dr.	S. de (Sijbrand)	RU
Mauro	MSc.	G. de (Giuseppe)	FOM
Timmermans	dr.	C.W.J.P. (Charles)	FOM
<b>Dark Matter</b>			
Aalbers	MSc.	J. (Jelle)	UvA
Breur	MSc.	P.A. (Sander)	FOM
Brown	dr.	A.G. (Andrew)	FOM
Colijn	dr.	A.P. (Auke Pieter)	UvA
Decowski	prof.dr.	M.P. (Patrick)	UvA
Hogenbirk	MSc.	E. (Erik)	FOM
Tiseni	MSc.	A. (Andrea)	FOM
<b>eEDM</b>			
Borschevsky	dr.	A. (Anastacia)	RUG
Hoekstra	prof. dr.	S. (Steven)	RUG
Jungmann	prof. dr.	K.H.K.J. (Klaus)	RUG
Willmann	dr.	L. (Lorenz)	RUG
<b>Theoretical Physics</b>			
Beekveld	MSc.	M.C. van (Melissa)	FOM
Beenakker	prof.dr.	W. (Wim)	RU
Bergshoeff	prof.dr.	E.A. (Eric)	RUG
Beurs	MSc.	M.P.R. de (Marc)	FOM
Boer	prof. dr.	D. (Daniel)	RUG
Ciceri	MSc.	F.P.M.Y. (Franz)	FOM
Cotogno	MSc.	S. (Sabrina)	VU
Daal	MSc.	T.A.A. van (Tom)	VU
Falcioni	dr.	G. (Giulio)	FOM
Fleischer	prof.dr.	R. (Robert)	FOM
Fumagalli	MSc.	J. (Jacopo)	FOM
Gaunt	dr.	J.R. (Jo)	overig
Herzog	dr.	F. (Franz)	FOM
Holten	prof.dr.	J.W. van (Jan-Willem)	FOM
Jaarsma	MSc.	R.L. (Ruben)	FOM
Kasemets	dr.	T. (Tomas)	VU
Kleiss	prof.dr.	R.H.P. (Ronald)	RU
Laenen	prof.dr.	E.L.M.P. (Eric)	FOM
Loll	prof.dr.	R. (Renate)	RU

Mirsoleimani	MSc.	S.A. (Ali)	FOM
Mulders	prof.dr.	P.J.G. (Piet)	VU
Nijs	MSc.	G.H. (Govert)	overig
Oncala Mesa	MSc.	R. (Ruben)	FOM
Pallante	prof.dr.	E. (Elisabetha)	RUG
Papaefstathlou	dr.	A. (Andreas)	overig
Petraki	dr.	K. (Kallia)	FOM
Petreska	dr.	E. (Elena)	overig
Postma	dr.	M.E.J. (Marieke)	FOM
Roest	prof.dr.	D. (Diederik)	RUG
Rojo	dr.	J. (Juan)	VU
Ruijl	MSc.	B.J.G. (Ben)	FOM
Saravanan	MSc.	S. (Satish)	UL
Schellekens	prof.dr.	A.N.J.J. (Bert)	FOM
Sinninghe Damste	MSc.	J.S. (Jort)	FOM
Tetlalmatzi-Xolocotzi	dr.	G. (Gilberto)	FOM
Timmermans	prof. dr.	R.G.E. (Rob)	RUG
Ueda	dr.	T. (Takahiro)	FOM
Verheyen	MSc.	R.J. (Rob)	FOM
Vermaseren	dr.	J.A.M. (Jos)	FOM
Vis	MSc.	J.M. van de (Jorinde)	FOM
Vries	dr.	J. de (Jordy)	FOM
Vryonidou	dr.	E. (Eleni)	FOM
Waalewijn	dr.	W.J. (Wouter)	overig
Wiechers	MSc.	M. (Michael)	UvA
Wit	prof.dr.	B.Q.P.J. de (Bernard)	overig
Zeune	dr.	L.K. (Lisa)	FOM
Zoppi	MSc.	L. (Lorenzo)	overig
<b>Detector R&amp;D</b>			
Bader	MSc.	M.K.M. (Maria)	FOM
Bakel	dr.	N.A. van (Niels)	FOM
Beuzekom	dr.ing.	M.G. van (Martin)	FOM
Carlier	MSc.	F.S. (Felix)	overig
Chan	MSc.	H.W. (Hong Wah)	FOM
Doni	MSc.	M. (Michele)	FOM
Fransen	dr.	M. (Martin)	FOM
Graaf	prof.dr.ir.	H. van der (Harry)	FOM
Hansson	dr.	C.C.T. (Conny)	FOM
Hartjes	dr.	F.G. (Fred)	overig
Idarraga Munoz	MSc.	J.P. (John)	FOM
Koffeman	prof.dr.ir.	E.N. (Els)	FOM
Ligtenberg	MSc.	C. (Kees)	FOM
Linde	prof.dr.	F.L. (Frank)	UvA
Prodanovic	MSc.	V. (Violeta)	FOM
Theulings	ir.	A.M.M.G. (Annemarie)	FOM

Timmermans	dr.	J.J.M. (Jan)	overig
Tsagri	ir.	M. (Mary)	overig
Tsigaridas	MSc.	S. (Stergios)	FOM
<b>Grid Computing</b>			
Groep	dr.	D.L. (David)	FOM
Templon	dr.	J.A. (Jeff)	FOM
<b>HiSPARC</b>			
Akrikez		K. (Khalid)	overig
Beekman	dr.drs.	R.E. (Reno)	FOM
Bezemer		J. (Jeroen)	overig
Dam	MSc	K. van (Kasper)	FOM
Eijk	prof.dr.ing.	B. van (Bob)	FOM
Kooij	ir.	T. (Tom)	overig
Laat	MSc.	A.P.L.S. de (Arne)	overig
Montanus	drs.	J.M.C. (Hans)	overig
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Ven		M.C.A. van de (Mark)	FOM
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Beveren	ing.	V. van (Vincent)	FOM
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Bouwhuis	dr.	M.C. (Mieke)	FOM
Damen		A.C.M. (Ton)	FOM
Dok	drs.	D.H. van (Dennis)	FOM
Gabriel	dr.	S. (Sven)	FOM
Hart	ing.	R.G.K. (Robert)	FOM
Jong		R.C. de (Robert)	FOM
Keijser	drs.	J.J. (Jan Just)	FOM
Kerkhoff		E.H.M. van (Elly)	FOM
Kuipers	drs.	P. (Paul)	FOM
Oudolf		H. (Jan)	overig
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Salle	dr.	M. (Mischa)	FOM
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Berkien		A.W.M. (Ad)	FOM
Borga	BICT	A.O. (Andrea)	FOM
Fransen		J.P.A.M. (Jean-Paul)	FOM
Gajanana	MSc.	D. (Deepak)	FOM
Gebyehu	ir.	M. (Mesfin)	FOM

Gotink		G.W. (Wim)	FOM
Gromov	ir.	V. (Vladimir)	FOM
Heijden	ing.	B.W. van der (Bas)	FOM
Ietswaard		G.C.M. (Charles)	FOM
Jansweijer	ing.	P.P.M. (Peter)	FOM
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*Astroparticle Physics International Forum (APIF):* S. Bentvelsen

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