



# General Scientific Meeting 2016 of the Belgian Physical Society

## Wednesday, 18 May 2016

### Poster Session (14:45 - 23:00)

| [id] title   | presenter                                | board |
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| [83] Impedimetric and thermal detection of the peanut allergen Ara h1  | Mr STILMAN, Wouter                       |       |
| [103] Search for a heavy scalar boson decaying into a pair of Z bosons in the 2l2ν final state   | Mr DELANNOY, Hugo                        |       |
| [105] Shaping Time Impact on 500 mm <sup>3</sup> CdZnTe Detector Spectra Quality   | Mr MELESHENKOVSKII, Iaroslav             |       |
| [61] Aharonov-Bohm oscillations of bosonic matter-wave beams in the presence of disorder and interaction   | Mr CHRÉTIEN, Renaud                      |       |
| [84] LiGa <sub>5</sub> O <sub>8</sub> :Cr <sup>3+</sup> as NIR Persistent Phosphor for In Vivo Imaging   | Mr DE CLERCQ, Olivier Q                  |       |
| [64] Chaotic Bohmian trajectories for stationary states  | MARTIN, John                             |       |
| [69] Design of an ICRF system for plasma-wall interactions and RF plasma production studies on TOMAS   | Dr WAUTERS, Tom                          |       |
| [90] Modelling of plasma screening effects in relativistic multiconfiguration Dirac-Fock calculations. Application to the atomic structure and inner-shell transitions of some iron ions | Mr DEPRINCE, Jérôme<br>Dr QUINET, Pascal |       |
| [128] Thin, low roughness Ru films deposited by thermal and plasma enhanced atomic layer deposition using RuO <sub>4</sub> and H <sub>2</sub> at low temperatures                        | Mr MINJAUW, Matthias                     |       |
| [92] Mutual Neutralization Studies at Subthermal Collision Energies  | Mr DOCHAIN, Arnaud                       |       |
| [95] Out-of-plane optical anisotropy in organic layers   | GUYOT, Corentin                          |       |
| [129] Towards a catheter based sensor for the electronic detection of histamine in the intestinal tract  | WACKERS, Gideon                          |       |
| [96] Particle-in-cell Monte Carlo collision simulations of ICRF discharge initiation in tokamaks and stellerators  | Mr TRIPSKY, Matej                        |       |
| [99] Preliminary Design of an ICRF Traveling-wave Comb-line Antenna for Fusion Devices   | RAGONA, Riccardo                         |       |
| [62] Anticoherence of spin states in the Majorana representation   | Mr BAGUETTE, Dorian                      |       |
| [97] Phase 2 Upgrade of the CMS Muon System with triple-GEM detectors  | Ms SALVA, Sinem                          |       |
| [134] Vector Boson Scattering prospects for High-Luminosity LHC at CMS in the WZ final state   | POYRAZ, Deniz                            |       |
| [58] AFM characterization of micro-contact printed self-assembled monolayers of alkanethiols   | Mrs NEUPANE, ShovaHasselt University     |       |
| [98] Plasma enhanced Atomic Layer Deposition of zinc sulfide   | Mr KUHS, Jakob                           |       |
| [100] Quantum Chromodynamics at Modern High-Energy Facilities  | CHEREDNIKOV, Igor                        |       |
| [86] Measurement of the top quark pair production cross section using dilepton events at 5 TeV   | Mr KRINTIRAS, Georgios<br>Konstantinos   |       |
| [101] Robust analysis of trends in noisy data  | VERDOOLAEGE, Geert                       |       |
| [85] Lithiation Mechanism Study of Si/Ti <sub>4</sub> Ni <sub>4</sub> Si <sub>7</sub> (STN) alloy  | ZHENG, Yueming                           |       |

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| [102] Search for SUSY with multileptons in proton proton collisions in $\sqrt{s} = 13$ TeV data using CMS detector   | Mr KHVASTUNOV, Illia                                 |  |
| [59] Accelerated Aging Testing of Phosphors in Remote wLED Configuration   | Mr VERSTRAETE, Reinert                               |  |
| [109] Size-dependent penetration of gold nanoparticles through a defect-free NaCl membrane   | Dr LI, Zhe   |  |
| [55] 3D DESIGN AND PERFORMANCE ANALYSIS OF NANO-SIZED SQUID-ON-TIP   | Mr HASNAT RUBEL, Abul                                |  |
| [56] A New Measurement for the Electron Impact Ionization of He(1s2s <sup>3</sup> S)   | Mr GÉNÉVRIEZ, Matthieu                               |  |
| [66] Composition dependent self-organization in Au-Ag core shell nanostructures  | Mr LIAO, Ting-Wei                                    |  |
| [57] A new tool for modelling ion cyclotron resonance heating wave propagation and damping in non-axisymmetrical magnetic confinement fusion machines                  | Dr VAN EESTER, Dirk                                  |  |
| [121] The High-Throughput approach to Computational Materials Design   | Mr SLUYDTS, Michael                                  |  |
| [87] Merged-Beam Study of Mutual Neutralization of $Li^{++} + D^{-}$   | LAUNOY, Thibaut                                      |  |
| [104] Search for dark matter with jets and missing transverse energy at 13 TeV at CMS  | COLLABORATION, CMS<br>DE BRUYN, Isabelle             |  |
| [112] Structural assignment of small silver clusters   | Mr VAN DER TOL, Johan<br>Mrs JIA, dewei              |  |
| [123] The oblique Hanle effect in graphene: A novel approach to determine spin lifetime anisotropy   | Mr SCHEERDER, Jeroen                                 |  |
| [60] Advanced structural and elemental characterization of energy materials and solid-electrolyte interfaces: From fundamental corrosion reactions to Li-ion batteries | Mr MOEREMANS, Boaz                                   |  |
| [63] Breathing effect in V-doped Metal Organic Framework MIL-53(Al) studied by Electron Paramagnetic Resonance (EPR)   | Ms NEVJESTIC, Irena                                  |  |
| [71] Drift waves in the solar corona   | OZAK, Nataly   |  |
| [88] Modeling exchange bias with MuMax3  | Prof. VAN WAEYENBERGE, Bartel<br>Mr DE CLERCQ, Jonas |  |
| [106] Signatures of Unsteady Asymmetric Magnetic Reconnection at the Magnetopause  | Mr CAZZOLA, Emanuele                                 |  |
| [65] Characterization of iron oxide nanoparticles by magnetometry: temperature deviation from Langevin law   | Mr HENRARD, Daniel                                   |  |
| [67] Computational Multi-Fluid Model for Partially Ionized and Magnetized Plasma   | Mr ALVAREZ LAGUNA, Alejandro                         |  |
| [68] Coordinate-based manipulation of guided waves with metamaterial waveguides  | Ms VIAENE, Sophie                                    |  |
| [70] Development of a hydrogen maser in the TE111 mode   | Ms VAN DER BEKEN, Emeline                            |  |
| [107] Signatures of the phase transition in a topological superconductor coupled to a bath   | Mr CLAEYS, Pieter                                    |  |
| [72] Exploring Models of Solar Dark Matter with PINGU Events   | Prof. PÉREZ DE LOS HEROS, Carlos<br>RAAB, Christoph  |  |

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| <b>[73] Fabrication and characterization of a single cluster transistor</b>  | Prof. SILHANEK, Alajandro<br>Prof. VAN DE VONDEL, JORIS<br>Dr PICOT, Thomas<br>Prof. MOSHCHALOV, Victor<br>Mr ZHARINOV, Vyacheslav<br>Mr BAUMANS, Xavier |  |
| <b>[89] Modeling neutrino-nucleus scatterings: From very low energies to the quasielastic peak</b>   | Dr PANDEY, Vishvas   |  |
| <b>[75] Frequency combs via plasmonic resonances in time-dependent graphene lattices</b>   | Mr ALTARES MENENDEZ, Galaad  |  |
| <b>[108] Simulating dust scattering polarization in spiral galaxies</b>  | Mr PEEST, P. Christian   |  |
| <b>[74] Far-infrared and dust properties of present-day galaxies in the EAGLE simulations</b>  | Mr CAMPS, Peter  |  |
| <b>[76] From BEC polaron to BCS polaron</b>  | LOMBARDI, Giovanni   |  |
| <b>[81] Identification of b-jets at CMS</b>  | Mr DEROOVER, Kevin   |  |
| <b>[91] Monte Carlo Simulations of Atomic Layer Deposition on 3D large surface area structures</b>   | DETAVERNIER, Christophe<br>GEENEN, Filip<br>Dr DENDOOVEN, Jolien<br>CREMERS, Véronique   |  |
| <b>[114] Study of the surface stability of the topological insulator Bi<sub>2</sub>Te<sub>3</sub> in different environments using scanning probe microscopy.</b> | Ms NETSOU, Asteriona-Maria   |  |
| <b>[118] The CMS Resistive Plate Chamber setup at the CERN Gamma Irradiation Facility</b>  | Mr GUL, Muhammad<br>Mr ZAGANIDIS, Nicolas  |  |
| <b>[78] High-resolution, 3D radiative transfer modeling of nearby DustPedia galaxies</b>   | Mr VERSTOCKEN, Sam   |  |
| <b>[93] Nuclear magnetic relaxation induced by gel-suspended cells labelled by iron-oxide nanoparticles: experimental and simulation studies</b>                 | VUONG, Quoc Lam  |  |
| <b>[79] ICRH on the stellarator Wendelstein 7-X: Challenges in the Construction of the system, Physics and Applications</b>                                      | MESSIAEN, André<br>VAN EESTER, Dirk<br>LOUCHE, Fabrice<br>ONGENA, Jozef<br>Mr VERVIER, Michel<br>Dr KAZAKOV, Yevgen                                      |  |
| <b>[110] SoLid technology and SM1 prototype</b>  | Ms MOORGAT, Celine   |  |
| <b>[82] Identification of c-quark jets at the CMS experiment</b>   | Mr MOORTGAT, Seth  |  |
| <b>[124] The phase-2 upgrade of the CMS Resistive Plate Chamber system</b>   | Mr FAGOT, Alexis   |  |
| <b>[80] IShTAR: An international facility for studying the interactions between ICRF waves and plasma</b>  | Dr CROMBE, Kristel   |  |
| <b>[94] On the existence of a double S-shaped process curve during reactive magnetron sputtering</b>   | Mr SCHELFHOUT, Roeland   |  |
| <b>[111] Space dosimetry with luminescent detectors</b>  | Mr PARISI, Alessio   |  |
| <b>[113] Structure identification of Transition Metal Doped Silicon Clusters</b>   | Mr LI, Yejun   |  |
| <b>[115] Super- and subradiance from indistinguishable atoms with quantized motion</b>   | DAMANET, François  |  |
| <b>[116] Systematics in the luminescence of ns<sup>2</sup> ions</b>  | Mr VAN DER HEGGEN, David<br>Mr JOOS, Jonas J.  |  |
| <b>[117] Taking Phosphor Investigation to the Next Level with SEM-CL/EDX</b>   | MARTIN, Lisa   |  |
| <b>[119] The ESA Virtual Space Weather Modelling Centre – Part 2</b>   | POEDTS, Stefaan  |  |

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| <b>[120] The Giant VCMA effect for novel MRAM applications</b>   | Mr VERMEULEN, Bart<br>Dr MARTENS, Koen                                 |  |
| <b>[125] The semi-digital hadronic calorimeter (SDHCAL) for future leptonic colliders</b>  | Mr PINGAULT, Antoine   |  |
| <b>[137] characterization of iron oxide particles with MR relaxometry: good and bad news</b>   | GOSSUIN, Yves  |  |
| <b>[122] The One-Photon Detachment of <math>\mathrm{O}^-</math>: theory and experiment</b>   | GÉNÉVRIEZ, Matthieu<br>URBAIN, Xavier                                  |  |
| <b>[126] The target material dependence of HiPIMS discharges</b>   | Mr MOENS, Filip  |  |
| <b>[127] The variation of the dust attenuation curve in the nearby Universe</b>  | Mrs DECLEIR, Marjorie  |  |
| <b>[130] Turbulence analysis in the reconnection exhaust of 3D PIC numerical simulation of magnetic reconnection</b>                                   | Dr PUCCI, Francesco  |  |
| <b>[131] Upgrade of the CMS muon system with triple-GEM detectors</b>  | Mr LENZI, Thomas   |  |
| <b>[132] Validation of the response function of the WENDI-2 detector with high-energy quasi-monoenergetic neutron beams for proton therapy centers</b> | Mr NDAYIZEYE, David<br>Mr DE LENTDECKER, Gilles                        |  |
| <b>[133] Vanadium dioxide thin films prepared on silicon by low temperature MBE growth and ex-situ annealing</b>                                       | MENGHINI, Mariela<br>SOUSA, Maryline<br>Dr SANCHIS, Pablo<br>HOMM, Pia |  |
| <b>[135] Vortices in a rotating Fermi gas within the finite temperature effective field theory</b>   | KLIMIN, Serghei  |  |
| <b>[136] YAGG:Cr<sup>3+</sup> luminescence : influence of synthesis on luminescent properties</b>  | Mr BOUMAN, Jesse<br>Ms TIBERI, Marta<br>Mr DE CLERCQ, Olivier Q        |  |