



**Poster Session 23/07/2018 18:00**

PM01

**Strain effects on the electronic and thermoelectric properties of Bi<sub>2</sub>Te<sub>3</sub>: A first principal study**

Hajji, Mohammed.

Faculty of Sciences, Mohammed V University in Rabat, Morocco.

PM02

**Nonlinear valley Hall transport phenomena in 2D transition metal dichalcogenide materials**

Kovalev, Vadim<sup>1</sup>; Entin, Matvey<sup>1</sup>; Tse, Wang-Kong<sup>2</sup>; Fistul, Mikhail<sup>3</sup>; Savenko, Ivan<sup>4</sup>.

<sup>1</sup>Institute of semiconductor physics; <sup>2</sup>Department of Physics and Astronomy, and Center for Materials for Information Technology, The University of Alabama; <sup>3</sup>Russian Quantum Center, National University of Science and Technology "MISIS"; <sup>4</sup>Center for Theoretical Physics of Complex Systems, Institute for Basic Science.

PM03

**Magnetoresistance oscillations in irradiated 2D electron systems with strong Rashba coupling.**

Inarrea, Jesus.

Universidad Carlos III de Madrid.

PM04

**Effects of Fe Substitution on Structural, Electrical and Magnetical Properties of Erbium Ortho-Chromite Nano Polycrystalline Material**

Jada, Shanker<sup>1</sup>; Medirddy, Buchi Suresh<sup>2</sup>; Padmanapan, Sravanan<sup>3</sup>; Devarsetty, Suresh Babu<sup>4</sup>.

<sup>1</sup>OSMANIA UNIVERSITY, HYDERABD, INDIA; <sup>2</sup>International Advanced Research Centre for powder metallurgy and New Materials Hyderabad, Telangana, India; <sup>3</sup>Defence Metallurgical Research Laboratory, Hyderabad, Telangana, India; <sup>4</sup>OSMANIA UNIVERSITY HYDERABAD INDIA.

PM05

**Ubiquitous interlayer coupling in two-dimensional materials and its effects on materials properties**

Zhang, Lijun. Jilin University.

PM06

**Self-gating diode based on MoS<sub>2</sub>/h-BN heterostructure**

Kim, Gil-Ho.

Sungkyunkwan University.

PM07

**Renormalised quasiparticles as vacancies at the MgZnO/ZnO heteroninterface**

Bisti, Veronika.

Institute of Solid State Physics RAS.



PM08

**Giant quantum Hall plateau in graphene coupled to an InSe van derWaals crystal**

Kudrynskyi, Zakhar<sup>1</sup>; Bhuiyan, Mahabub<sup>1</sup>; Makarovsky, Oleg<sup>1</sup>; Greener, Jake<sup>1</sup>; Vdovin, Evgenii<sup>2</sup>; Kovalyuk, Zakhar<sup>3</sup>; Cao, Yang<sup>4</sup>; Mishchenko, Artem<sup>5</sup>; Novoselov, Konstantin<sup>5</sup>; Beton, Peter<sup>1</sup>; Eaves, Laurence<sup>1</sup>; Patane, Amalia<sup>1</sup>.

<sup>1</sup> School of Physics & Astronomy, The University of Nottingham; <sup>2</sup> Institute of Microelectronics Technology & High Purity Materials, RAS; <sup>3</sup> Institute for Problems of Materials Science, The National Academy of Sciences of Ukraine, Chernivtsi Branch; <sup>4</sup> National Graphene Institute, University of Manchester; <sup>5</sup> School of Physics and Astronomy, University of Manchester.

PM09

**Multilayer device from vertical graphene/h-BN heterostructures**

Hernández, Luis.

University of Havana.

PM10

Abstract Form, HPSP18&WHS2

**Influence of polar pressure transmission medium on the pressure coefficient of excitonic interband transitions in monolayer WSe<sub>2</sub>**

Sun, Baoquan.

State Key Laboratory for Superlattices and Microstructures, Institute of semiconductors, Chinese Academy of Sciences.

PM11

**New exciton resonances in small-twist angle MoSe<sub>2</sub>/WSe<sub>2</sub> heterostructures**

Moody, Galan<sup>1</sup>; Tran, Kha<sup>2</sup>; Hao, Kai<sup>2</sup>; Autry, Travis<sup>1</sup>; Li, Xiaoqin<sup>2</sup>; Silverman, Kevin<sup>1</sup>.

<sup>1</sup> NIST; <sup>2</sup> University of Texas.

PM12

**Solitons in a quasi-one dimensional chain with a flat band**

Bercioux, Dario<sup>1</sup>; Dutta, Omjoti<sup>1</sup>; Rico, Enrique<sup>2</sup>.

<sup>1</sup> DIPC; <sup>2</sup> UPV/EHU.

PM13

**Influence of electron interference effects on reflection of electron waves from potential barrier in 2D semiconductor nanostructures**

Petrov, Victor; Nikitin, Andrey.

Institute of Radio Engineering and Electronics, Russian Academy of Sciences.

PM14

**Characterization and electrical properties of boron-doped reduced graphene oxide for solar cell application**

Ryu, Beo Deul; Han, Min; Ko, Kang Bok; Cho, Chang Hee; Hong, Chang-Hee.

Semiconductor Physics Research Center/Chonbuk National University.



PM15

**Modulation of Size and Components for Solar Cells Consisting of Wurtzite  $\text{In}_x\text{Ga}_{1-x}\text{N}/\text{GaN}$  Quantum Wells**

Weng, Zhi; Li, Xiaoping; Dong, Shanshan; Ren, Shuliang; Ban, Shiliang.  
Inner Mongolia University.

PM16

**Bound states in the continuum poisoned by Majorana fermions**

Orellana, Pedro; Zambrano, David; Ramos, Juan Pablo.  
Universidad Técnica Federico Santa Maria.

PM17

**Tuning the conductance quantization in a high spin-orbit coupling material**

Trottmann, Michaela; Wieand, Martin; Himmler, Wolfgang; Schuh, Dieter; Bougeard, Dominique.  
Institut fuer Experimentelle und Angewandte Physik, Universitaet Regensburg.

PM18

**Optical Tuning of the Charge Carrier Type in  $\text{InAs}/\text{GaSb}$  Quantum Wells**

Hartmann, Fabian; Knebl, Georg; Pfeffer, Pierre; Kamp, Martin; Worschech, Lukas; Höfling, Sven.  
Technische Physik, Physikalisches Institut, Universität Würzburg.

PM19

**High-Pass Frequency Filter on Resonant Photon Drag Effect in Exciton Condensates**

Kovalev, Vadim<sup>1</sup>; Boev, Maxim<sup>2</sup>; Savenko, Ivan<sup>3</sup>.

<sup>1</sup> Department of Applied and Theoretical Physics, Novosibirsk State Technical University, Novosibirsk 630073, Russia; <sup>2</sup> A.V. Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences, Novosibirsk 630090, Russia; <sup>3</sup> Institute for Basic Science (IBS), Center for Theoretical Physics of Complex Systems (PCS).

PM20

**Solution-processed graphene quantum dots on reduced graphene oxide films as transparent and flexible UV photoconductors**

Ko, Kang Bok; Thanh, Do Trong; Ryu, Beo Deul; Han, Min; Cuong, Tran Viet; Hong, Chang-Hee.

School of Semiconductor and Chemical Engineering, Semiconductor Physics Research Center, Chonbuk National University.

PM21

**Exceptional points in optically anisotropic planar microcavities**

Steffen, Richter<sup>1</sup>; Zúñiga-Pérez, Jesús<sup>2</sup>; Deparis, Christiane<sup>2</sup>; Trefflich, Lukas<sup>3</sup>; Zirnstein, Heinrich-Gregor<sup>4</sup>; Sturm, Chris<sup>3</sup>; Rosenow, Bernd<sup>4</sup>; Grundmann, Marius<sup>3</sup>; Schmidt-Grund, Rüdiger<sup>3</sup>.

<sup>1</sup> ELI Beamlines; <sup>2</sup> CRHEA-CNRS; <sup>3</sup> Felix Bloch Institute for Solid State Physics, Leipzig University; <sup>4</sup> Institute for Theoretical Physics, Leipzig University.



PM22

**AC-driven dimer chain with long-range hoppings: topology, disorder, and quantum transport**

Pérez-González, Beatriz; Bello, Miguel; Gómez-León, Álvaro; Platero, Gloria.  
Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC).

PM23

**Study on temperature dependence of dielectric function of monolayer MoS<sub>2</sub> based on the parametric model**

Le, Van Long<sup>1</sup>; Kim, Tae Jung<sup>1</sup>; Park, Han Gyeol<sup>1</sup>; Le, Chinh Tam<sup>2</sup>; Kim, Yong Soo<sup>2</sup>; Nguyen, Hoang Tung<sup>1</sup>; Ji, Jeoung Min<sup>1</sup>; Nguyen, Xuan Au<sup>1</sup>; Kim, Young Dong<sup>1</sup>.

<sup>1</sup>Department of Physics, Kyung Hee University; <sup>2</sup>Department of Physics and Energy Harvest Storage Research Center (EHSRC), University of Ulsan.

PM24

**Van der Waals heterostructures as synthetic semiconductors**

Ponomarev, Evgeniy<sup>1</sup>; Ubrig, Nicolas<sup>1</sup>; Gutiérrez-Lezama, Ignacio<sup>1</sup>; Berger, Helmut<sup>2</sup>; Morpurgo, Alberto<sup>1</sup>.

<sup>1</sup>University of Geneva; <sup>2</sup>EPFL.

PM25

**Electronic mobility in 2D quantum dot superlattices**

Skibinsky Gitlin, Erik Sebastian<sup>1</sup>; Gomez Campos, Francisco Manuel<sup>1</sup>; Rodríguez Bolívar, Salvador<sup>1</sup>; Califano, Marco<sup>2</sup>; Carceller Beltran, Juan Enrique<sup>1</sup>.

<sup>1</sup>UGR; <sup>2</sup>University of Leeds.

PM27

**Advances in electron transport in InSb/Al<sub>x</sub>In<sub>1-x</sub>Sb quantum wells: magnetoresistance measurements and transport lifetime modelling**

McIndo, Christopher<sup>1</sup>; Hanks, Laura<sup>2</sup>; Smith, George<sup>1</sup>; Allford, Craig<sup>1</sup>; Zhang, Shiyong<sup>3</sup>; Clarke, Edmund<sup>3</sup>; Buckle, Philip<sup>1</sup>.

<sup>1</sup>Cardiff University; <sup>2</sup>Lancaster University; <sup>3</sup>EPSRC National Centre for III-V Technologies, University of Sheffield.

PM28

**Spin-orbit coupling effects in zinc-blende InSb and wurtzite InAs nanowires**

Campos, Tiago<sup>1</sup>; Faria Junior, Paulo Eduardo<sup>2</sup>; Gmitra, Martin<sup>2</sup>; Fabian, Jaroslav<sup>2</sup>; Sipahi, Guilherme<sup>1</sup>.

<sup>1</sup>Universidade de São Paulo; <sup>2</sup>Regensburg University.

PM29

**Electronic transport properties of bilayer phosphorene superlattices**

Youness, Zahidi<sup>1</sup>; Ahmed, Jellal<sup>2</sup>.

<sup>1</sup>Hassan 1st University / Polydisciplinary Faculty; <sup>2</sup>Chouaib Doukkali University / Faculty of Sciences.



PM30

**Transmission and Goos-Hänchen shifts in bilayer graphene**

Youness, Zahidi<sup>1</sup>; Ilham, Redouani<sup>2</sup>; Ahmed, Jellal<sup>2</sup>.

<sup>1</sup>Hassan 1st University / Polydisciplinary Faculty; <sup>2</sup>Chouaib Doukkali University / Faculty of Sciences.

PM31

**Decay of two-electron bound states in two-dimensional electron systems with inverted band spectrum**

Sablikov, Vladimir; Shchamkhalova, Bagun.

IRE RAS.

PM32

**Neutral donor energy structure and electric-field-induced optical transparency effect in multi-hilled quantum ribbon**

Marín, Jairo Humberto<sup>1</sup>; Salazar, Juan David<sup>2</sup>; Fonnegra, Daniel<sup>1</sup>; Suaza, Yoder<sup>1</sup>; Mora-Ramos, Miguel<sup>3</sup>.

<sup>1</sup>Universidad Nacional de Colombia/Escuela de Física; <sup>2</sup>Universidad Nacional de Colombia/Escuela de Física; <sup>3</sup>Universidad Autonoma de Morelos/Centro de investigación en ciencias-II CBA.

PM33

**High Temperature Superconductivity in Monolayer  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$**

Yu, Yijun<sup>1</sup>; Ma, Liguang<sup>1</sup>; Cai, Peng<sup>1</sup>; Ye, Cun<sup>1</sup>; Zhong, Ruidan<sup>2</sup>; Shen, Jian<sup>1</sup>; Gu, Genda<sup>2</sup>; Chen, Xian Hui<sup>3</sup>; Zhang, Yuanbo<sup>1</sup>.

<sup>1</sup>Fudan University; <sup>2</sup>Brookhaven National Laboratory; <sup>3</sup>University of Science and Technology of China.

PM34

**Isoelectronic Compounds to Phosphorene:  
Stable Carbon Monosulfide 2D Nanostructures**

Ayuela, Andres<sup>1</sup>; Alonso-Lanza, Tomas<sup>1</sup>; Gonzalez, Jhon W.<sup>1</sup>; Aguilera-Granja, Faustino<sup>2</sup>.

<sup>1</sup>Centro de Física de Materiales MPC CSIC-UPV/EHU; <sup>2</sup>Instituto de Física, Universidad Autónoma de San Luis de Potosí.

PM35

**Electroluminescence from indirect band gap semiconductor  $\text{ReS}_2$**

Gutierrez Lezama, Ignacio; Reddy, Bojja Aditya; Ubrig, Nicolas; Morpurgo, Alberto.

University of Geneva.

PM36

**Electron transport in graphene field effect transistors with periodic strain**

Tomori, Hikari; Hiraide, Rineka; Kanda, Akinobu.

University of Tsukuba.

PM37

**Interference effects in electron transport through graphene quantum point contacts**

Clericò, Vito<sup>1</sup>; Delgado-Notario, Juan Antonio<sup>1</sup>; Saiz-Bretín, Marta<sup>2</sup>; Malyshev, Andrey<sup>2</sup>; Meziani, Yahya<sup>1</sup>; Domínguez-Adame, Francisco<sup>2</sup>; Diez, Enrique<sup>1</sup>.



<sup>1</sup> Universidad de Salamanca (USAL); <sup>2</sup> Universidad Complutense.

PM38

**Anderson transition in a developed network of 2D topological insulator edge states**

Mahmoodian, Mahmood; Entin, Matvey.

Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences.

PM39

**Time-resolved tunneling between Landau levels in a weakly coupled quantum dot in the integer quantum Hall regime**

Röösli, Marc P.; Hennel, Szymon; Braem, Beat A.; Kratochwil, Benedikt; Nicoli, Giorgio; Berl, Matthias; Reichl, Christian; Wegscheider, Werner; Ihn, Thomas; Ensslin, Klaus. ETH Zürich.

PM40

**Lithium Ion Glass Ceramic as gate dielectric for Light Emitting Field Effect Transistors**

Philippi, Marc; Gutiérrez-Lezama, Ignacio; Ubrig, Nicolas; F. Morpurgo, Alberto. DQMP Université de Genève.

PM41

**Long-distance coherent coupling of quantum dots via an electronic cavity**

Nicolí, Giorgio <sup>1</sup>; Ferguson, Michael Sven <sup>2</sup>; Rössler, Clemens <sup>1</sup>; Blatter, Gianni <sup>2</sup>; Ihn, Thomas <sup>1</sup>; Ensslin, Klaus <sup>1</sup>; Reichl, Christian <sup>1</sup>; Wegscheider, Werner <sup>1</sup>; Zilberberg, Oded <sup>2</sup>.

<sup>1</sup> Solid State Physics Laboratory, ETH Zürich; <sup>2</sup> Institute for Theoretical Physics, ETH Zürich.

PM42

**Adsorption of small molecules on blue-phosphorene oxides: Electronic properties**

Zuluaga Hernandez, Edison Albert <sup>1</sup>; Dorkis, Ludovic <sup>1</sup>; Florez, Elizabeth <sup>2</sup>; Correa Abad, Julian David <sup>2</sup>.

<sup>1</sup> Universidad Nacional de Colombia sede Medellin; <sup>2</sup> Universidad de Medellin.

PM43

**Opto-electronic properties of MoS<sub>2</sub> quantum dots: Effects of geometry and external electric field**

Bertel, Ramón <sup>1</sup>; Ramos, M. E. Mora <sup>2</sup>; Correa, Julian <sup>3</sup>.

<sup>1</sup> Universidad de la Guajira; <sup>2</sup> Universidad Autónoma del Estado de Morelos; <sup>3</sup> Universidad de Medellín.

PM44

**Direct determination of composition in In(Ga)N/GaN short period superlattices by quantitative HRSTEM**

Dimitrakopoulos, George P. <sup>1</sup>; Vasileiadis, Isaak G. <sup>1</sup>; Bazioti, Calliope <sup>1</sup>; Smalc-Koziorowska, Julita <sup>2</sup>; Kret, S?avomir <sup>3</sup>; Dimakis, Emmanouil <sup>4</sup>; Florini, Nikoletta <sup>1</sup>; Kehagias, Thomas <sup>1</sup>; Suski, Tadek <sup>2</sup>; Karakostas, Theodoros <sup>1</sup>; Moustakas, Theodore D. <sup>5</sup>; Komninou, Philomela <sup>1</sup>.

<sup>1</sup> Physics Department, Aristotle University of Thessaloniki; <sup>2</sup> Institute of High Pressure Physics, Polish Academy of Sciences; <sup>3</sup> Institute of Physics, Polish Academy of Sciences; <sup>4</sup>



Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf; <sup>5</sup> Department of Electrical and Computer Engineering and Center for Photonics Research, Boston University.

PM45

**Study of electronic band dispersion relation  $E(K)$  of structurally asymmetric  $\text{InAs}/\text{Al}_{0.2}\text{Ga}_{0.8}\text{Sb}$  QW by  $8\times 8$  Kane model Hamiltonian**

Gholami, Mohammad Hosein <sup>1</sup>; Pakmehr, Mehdi <sup>1</sup>; Lo, Ikai <sup>2</sup>.

<sup>1</sup> Shiraz University; <sup>2</sup> NSYS University.

PM46

**Fano signatures in differential transmission spectra of MQW structures**

Pedroso, Diogo De Moura <sup>1</sup>; Schmidt, Johannes <sup>1</sup>; Passaro, Angelo <sup>2</sup>; Helm, Manfred <sup>1</sup>; Schneider, Harald <sup>1</sup>.

<sup>1</sup> Helmholtz Zentrum Dresden Rossendorf; <sup>2</sup> Instituto de Estudos Avançados.

PM47

**Transport in disordered monolayer  $\text{MoS}_2$ : Interplay between vacancy-induced short-range and Coulomb disorder scattering**

Kaasbjerg, Kristen <sup>1</sup>; Low, Tony <sup>2</sup>; Jauho, Antti-Pekka <sup>1</sup>.

<sup>1</sup> Dept. of Micro and Nanotechnology, Technical University of Denmark; <sup>2</sup> Dept. of Electrical and Computer Engineering, University of Minnesota.

PM48

**Theoretical results for the lattice contribution to the dielectric properties of  $\text{MoS}_2$ ,  $\text{MoSe}_2$  and  $\text{SnS}_2$**

Leite Alves, Horacio W.

Universidade Federal de São João del-Rei.

PM49

**Circular dichroism of chiral Majoranas**

Serra, Llorens; Osca, Javier.

IFISC, Univ. of the Balearic Islands.

PM50

**Stability and electronic properties of  $\text{HgMnTe}$  alloys**

De Carvalho, Luiz C. <sup>1</sup>; Silveira Jr., Orlando J. <sup>2</sup>; Leite Alves, Horacio W <sup>1</sup>.

<sup>1</sup> Universidade Federal de São João del-Rei; <sup>2</sup> Universidade Federal de Minas Gerais.

PM51

**A new 2D material for hydrogen storage application**

Garara, Mourad.

Faculty of Sciences, Mohammed V University.

PM52

**Modulation of the optical and electronic properties on phosphorene nanoribbons by atomic doping**

Correa, Julian.

Universidad de Medellín.



PM53

**Berry curvature and valley Hall effect in graphene antidot lattices**

Martiny, Johannes H. J.; Kaasbjerg, Kristen; Jauho, Antti-Pekka.

Technical University of Denmark, Center for Nanostructured Graphene.

PM54

**Dependence of photonic defect modes with the hydrostatic pressure in a 2D hexagonal lattice**

Segovia, Francis.

Universidad Surcolombiana.

PM55

**Electronic band structure and surface states of Cu-chalcopyrite semiconductors**

Arriaga, Jesus<sup>1</sup>; Castellanos Águila, Jesus Eduardo<sup>1</sup>; Palacios Clemente, Pablo<sup>2</sup>; Wahnón Benarroch, Perla<sup>2</sup>.

<sup>1</sup> Benemérita Universidad Autónoma de Puebla; <sup>2</sup> Universidad Politécnica de Madrid.

PM56

**ANALYTICAL SOLUTIONS FOR THE SURFACE STATES IN SLAB GEOMETRIES OF TOPOLOGICAL SEMIMETALS**

Benito-Matías, Enrique; A. Molina, Rafael.

Instituto de Estructura de la Materia (IEM), CSIC.

PM57

**Photoluminescence in GaSe sheets induced by strain**

Espinha, André; Lazi?, Snežana; Maeso, David; Rubio-Bollinger, Gabino; Van Der Meulen, Herko P..

Universidad Autonoma de Madrid.

PM58

**Atomistic far field currents in graphene using DFT precision regions – how to couple DFT and tight-binding for graphene**

Papior, Nick; Calogero, Gaetano; Brandbyge, Mads.

Technical University of Denmark.

PM59

**Temperature-driven formation of ferrimagnetic nanoclusters in epitaxial Fe/Pt spintronic bilayers**

Kehagias, Thomas<sup>1</sup>; Dimitrakopoulos, George<sup>1</sup>; Karfaridis, Dimitrios<sup>1</sup>; Mihalceanu, Laura<sup>2</sup>; Vourlias, George<sup>1</sup>; Papaioannou, Evangelos<sup>2</sup>.

<sup>1</sup> Physics Department, Aristotle University of Thessaloniki; <sup>2</sup> Department of Physics and National Research Center OPTIMAS, Technical University of Kaiserslautern.

PM60

**Very Large Tunneling Magnetoresistance in Layered Magnetic Semiconductor CrI<sub>3</sub>**

Wang, Zhe<sup>1</sup>; Gutiérrez-Lezama, Ignacio<sup>1</sup>; Ubrig, Nicolas<sup>1</sup>; Kroner, Martin<sup>2</sup>; Imamoğlu, Ataç<sup>2</sup>; Giannini, Enrico<sup>1</sup>; Morpurgo, Alberto F.<sup>1</sup>.

<sup>1</sup> DQMP; <sup>2</sup> Institute of Quantum Electronics.





PM61

**Ultrafast magnetic hybridization of spin and orbital degrees of freedom in two-dimensional quantum rings**

Chwiej, Tomasz; P?onka, Jakub.

AGH University of Science and Technology.

PM62

**Piezoelectric Responses in Sm and Nd Ferroborates. Magnetopiezoelectric Effect**

Fil, Vyacheslav <sup>1</sup>; Gaydamak(haidamak Passport Name), Tetiana <sup>1</sup>; Gudim, Irina <sup>2</sup>.

<sup>1</sup>B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine; <sup>2</sup>L.V. Kirensky Institute for Physics, Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia.

PM63

**Thermal conductivity measurements of three-dimensional nano-structures**

Caballero-Calero, Olga; Abad-López, Begoña; Ruiz-Clavijo, Alejandra; Martín-González, Marisol.

Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC).

PM64

**Theoretical studies of the stability and dielectric properties of PbSnTe alloys**

Ribeiro Neto, Antonio R. <sup>1</sup>; Leite Alves, Horacio W. <sup>1</sup>; Scolfaro, Luisa M. R. <sup>2</sup>; Borges, Pablo D. <sup>3</sup>.

<sup>1</sup> Universidade Federal de São João del-Rei; <sup>2</sup> Texas State University; <sup>3</sup> Universidade Federal de Viçosa.

PM65

**Electronic bandgaps of gallium-zinc oxynitride**

Bettadj, Latifa; Boufatah, Mohammed Reda; Merad, Abdelkrim.

University of Tlemcen.



**Poster Session 24/07/2018 18:00**

PT01

**Optical properties of an exciton bound to an ionized donor impurity in ellipsoidal quantum dots under electric field and hydrostatic pressure**

Yan, Zuwei; Shi, Lei.

College of Science, Inner Mongolia Agricultural University.

PT02

**Dynamics of coherent polariton modes and tunable lasing in ZnO microwire cavities at room temperature**

Michalsky, Tom; Wille, Marcel; Krüger, Evgeny; Grundmann, Marius; Schmidt-Grund, Rüdiger.

Felix Bloch Institute for Solid State Physics, Leipzig University.

PT03

**Spatial Dispersion and Optical Magnetism of Finite-Thickness Ultrathin Plasmonic Films**

Bondarev, Igor<sup>1</sup>; Shalaev, Vladimir<sup>2</sup>.

<sup>1</sup>North Carolina Central University; <sup>2</sup>Purdue University.

PT04

**Trion and Biexciton Complexes Formed by Indirect Excitons in Layered Quasi-2D Heterostructures**

Bondarev, Igor<sup>1</sup>; Vladimirova, Maria<sup>2</sup>.

<sup>1</sup>North Carolina Central University; <sup>2</sup>Lab. Charles Coulomb, University of Montpellier.

PT05

**Single photons from an incoherently excited nonlinear system**

Ghosh, Sanjib; C. H. Liew, Timothy.

Nanyang Technological University.

PT06

**Effects of hydrostatic pressure on the band structure in two-dimensional square photonic lattice with defect**

Segovia, Francis.

Universidad Nacional de Colombia, Universidad Surcolombiana.

PT07

**Phonon effects on laser-driven quantum-dot cavity systems in the strong-coupling strong-driving limit**

Cygorek, Moritz<sup>1</sup>; Barth, Andreas M.<sup>2</sup>; Ungar, Florian<sup>2</sup>; Vagov, Alexei<sup>2</sup>; Axt, Vollrath Martin<sup>2</sup>.

<sup>1</sup>University of Ottawa; <sup>2</sup>University of Bayreuth.



PT08

**Enhancement of the optical properties of monolayer MoS<sub>2</sub> via plasmonic gallium nanoparticles**

Catalán Gómez, Sergio<sup>1</sup>; Garg, Sourav<sup>2</sup>; Redondo Cubero, Andrés<sup>1</sup>; Gordillo, Nuria<sup>1</sup>; Nucciarelli, Flavio<sup>3</sup>; Kim, Seonsing<sup>2</sup>; Kung, Patrick<sup>2</sup>; Pau, Jose Luis<sup>1</sup>.

<sup>1</sup> Universidad Autónoma de Madrid; <sup>2</sup> University of Alabama; <sup>3</sup> Lancaster University.

PT09

**Charge polarization effects on the optical response of GaN superlattices**

Pereyra, Pedro<sup>1</sup>; Assaoui, Fatna<sup>2</sup>.

<sup>1</sup> Universidad Autónoma Metropolitana, Azcapotzalco; <sup>2</sup> University Mohammed V.

PT10

**Excitation of localized states in the flat band of exciton-polariton Lieb lattice**

Sun, Meng<sup>1</sup>; Savenko, Ivan<sup>2</sup>; Flach, Sergej<sup>2</sup>; Rubo, Yuri<sup>3</sup>.

<sup>1</sup> Institute for Basic Science Center for Theoretical Physics of Complex System; Basic Science Program, Korea University of Science and Technology; <sup>2</sup> Institute for Basic Science Center for Theoretical Physics of Complex System; <sup>3</sup> Institute for Basic Science Center for Theoretical Physics of Complex System; Instituto de Energías Renovables, Universidad Nacional Autónoma de México.

PT11

**Terahertz Light–Matter Interaction beyond Unity Coupling Strength**

Halbhuber, Maike; Bayer, Andreas; Mornhinweg, Joshua; Zeller, Viola; Pozimski, Marcel; Schuh, Dieter; Huber, Rupert; Lange, Christoph; Bougeard, Dominique.  
Universität Regensburg.

PT12

**Static strain tuning of quantum dots embedded in a photonic wire**

Tumanov, Dmitrii<sup>1</sup>; Vaish, Nitika<sup>1</sup>; Nguyen, Hoai Anh<sup>1</sup>; Curé, Yoan<sup>2</sup>; Gérard, Jean-Michel<sup>2</sup>; Claudon, Julien<sup>2</sup>; Donatini, Fabrice<sup>1</sup>; Poizat, Jean-Philippe<sup>1</sup>.

<sup>1</sup> Université Grenoble Alpes, Institut Néel, CNRS; <sup>2</sup> Université Grenoble Alpes, CEA, INAC-PHELIQS.

PT13

**A new pathway for controlling spontaneous emission in semiconductor nanowires**

Dirnberger, Florian; Koller, Thomas; König, Jan; Schüller, Christian; Korn, Tobias; Bougeard, Dominique.

Institut für Experimentelle und Angewandte Physik/ Universität Regensburg.

PT14

**Optical temperature sensing of Ho<sup>3+</sup>/Tm<sup>3+</sup>/Yb<sup>3+</sup> triple-doped oxyfluoride glasses based on non-thermally coupled levels**

Liu, Jiaming Liu; Huang, Xing Huang; Zhang, Hao Zhang; Li, Wenxiu Li; Huang, Anping Huang; Xiao, Zhisong Xiao.

Beihang University.



PT15

**Simulation and Depth Profiling of Vertical-cavity Structures for Quantum and Classical Emitters at Telecoms Wavelengths**

Wilson, Thomas<sup>1</sup>; Hodgson, Peter<sup>1</sup>; Robson, Alex<sup>2</sup>; Counsell, Jonathan<sup>3</sup>; Hayne, Manus<sup>1</sup>.  
<sup>1</sup>Lancaster University; <sup>2</sup>Lancaster Material Analysis; <sup>3</sup>Kratos Analytical.

PT16

**Optical properties of finite length chevron-type graphene nanoribbons**

Saroka, Vasil<sup>1</sup>; Abdelsalam, Hazem<sup>2</sup>; Demin, Victor<sup>3</sup>; Grassano, Davide<sup>4</sup>; Kuten, Semen<sup>1</sup>; Pushkarchuk, Alexander<sup>5</sup>; Pulci, Olivia<sup>4</sup>.

<sup>1</sup>Belarusian State University; <sup>2</sup>National Research Center; <sup>3</sup>Emanuel Institute of Biochemical Physics; <sup>4</sup>University of Rome Tor Vergata; <sup>5</sup>Institute of Physical Organic Chemistry.

PT17

**Quantum emitter dynamics in a 1D topological photonic crystal**

Bello Gamboa, Miguel<sup>1</sup>; Platero, Gloria<sup>1</sup>; González Tudela, Alejandro<sup>2</sup>.

<sup>1</sup>Material Science Institute of Madrid, CSIC, 28049 Cantoblanco; <sup>2</sup>Max Planck Institute of Quantumoptics, 85748 Garching.

PT18

**Exciton filter in a system of double asymmetric quantum wells**

Budkin, Grigory; Eremenko, Maxim; Reznitsky, Alexander.  
Ioffe Institute.

PT20

**Nonlinear optical response of a 2D layer of  $\Lambda$ -emitters: Emerging bistability, self-oscillations and hyperchaos**

Giorgis, Valentina<sup>1</sup>; Malyshev, Andrey<sup>2</sup>; Malikov, Ramil<sup>3</sup>; Ryzhov, Igor<sup>4</sup>; Malyshev, Victor<sup>5</sup>.

<sup>1</sup>Universidad Complutense; <sup>2</sup>Universidad Complutense de Madrid; <sup>3</sup>Akmullah State Pedagogical University of Bashkortostan; <sup>4</sup>Hertsen State Pedagogical University; <sup>5</sup>Zernike Institute for Advanced Materials, University of Groningen.

PT21

**Research on the GaN based Whispering Gallery Mode Microtube Cavity**

Li, Yufeng; Feng, Lungang; Shang, Geng; Yun, Feng.  
Xi'an Jiaotong University.

PT22

**Optical Properties of AlGaIn Nanocolumns**

Chen, Peng; Gao, Peng; Fang, Huajie; Xie, Zili; Xiu, Xiangqian; Chen, Dunjun; Hua, Xuemei; Zhang, Rong; Zheng, Youdou.

Nanjing University.

PT23

**Enhancement of entanglement between exciton-polaritons by modulation of Josephson coupling**

Stefanatos, Dionysios; Paspalakis, Emmanuel.

University of Patras, Materials Science Department.



PT24

**Exciton localization and structural disorder in GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells grown by MBE on (311)B GaAs substrates**

Prando, Gabriela A. <sup>1</sup>; Orsi Gordo, Vanessa <sup>1</sup>; Puustinen, Janne <sup>2</sup>; Alghamdi, Haifa M. <sup>3</sup>; Som, Gulcam <sup>4</sup>; Gunes, Mustafa <sup>4</sup>; Akyol, Mustafa <sup>4</sup>; Souto, Sergio <sup>5</sup>; Rodrigues, Ariano D. <sup>1</sup>; Galeti, Helder V. A. <sup>6</sup>; Henini, Mohamed <sup>3</sup>; Guina, Mircea <sup>2</sup>; Galvão Gobato, Yara <sup>1</sup>.

<sup>1</sup> Departamento de Física, Universidade Federal de São Carlos; <sup>2</sup> Optoelectronics Research Centre, Tampere University of Technology; <sup>3</sup> School of Physics and Astronomy, University of Nottingham; <sup>4</sup> Department of Materials Engineering, Engineering and Natural Sciences Faculty, Adana Science and Technology University; <sup>5</sup> Departamento de Ciências Básicas, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo; <sup>6</sup> Departamento de Engenharia Elétrica, Universidade Federal de São Carlos.

PT25

**Exciton diffusion in a quantum dot ensemble**

Kawa, Karol; Machnikowski, Paweł.

Department of Theoretical Physics at Wrocław University of Science and Technology,.

PT26

**Second and third harmonic generation in asymmetric multiple-step-like quantum well driven by intense laser field**

Restrepo Arango, Ricardo León <sup>1</sup>; González Pereira, Juan Pablo <sup>1</sup>; Morales Aramburu, Álvaro Luis <sup>2</sup>; Duque Echeverri, Carlos Alberto <sup>2</sup>.

<sup>1</sup> Universidad EIA; <sup>2</sup> Universidad de Antioquia.

PT27

**Optical properties of GaN<sub>2</sub>O**

Boufatah, Mohammed Reda; Bettadj, Latifa; Merad, Abdelkrim.

University of Tlemcen.

PT28

**Heavy-hole and electron states in coupled cylindrical quantum dots: Electric field effects**

Restrepo Arango, Ricardo León <sup>1</sup>; Vinasco, Juan Alejandro <sup>2</sup>; Morales Aramburu, Álvaro Luis <sup>2</sup>; Radu, Adrian <sup>3</sup>; Duque Echeverri, Carlos Alberto <sup>2</sup>.

<sup>1</sup> Universidad EIA; <sup>2</sup> Universidad de Antioquia; <sup>3</sup> University of Bucharest.

PT29

**GaAs nanoantennas on Si with bandgap-tuned Mie resonances**

Raya, Andrés M. <sup>1</sup>; Friedl, Martin <sup>2</sup>; Llorens, José M. <sup>1</sup>; Alén, Benito <sup>1</sup>; Fuster, David <sup>1</sup>; Martí-Sánchez, Sara <sup>3</sup>; Francaviglia, Luca <sup>2</sup>; Tütüncüoğlu, Gözde <sup>2</sup>; Arbiol, Jordi <sup>3</sup>; Fontcuberta I Morral, Anna <sup>2</sup>.

<sup>1</sup> Instituto de Micro y Nanotecnología, IMN-CNM CSIC; <sup>2</sup> Ecole Polytechnique Fédérale de Lausanne, EPFL; <sup>3</sup> Catalan Institute of Nanoscience and Nanotechnology, ICN2.



PT30

**Polaron resonances and persistence of spatial coherence in self-assembled double quantum dots**

Karwat, Paweł; Gawarecki, Krzysztof; Machnikowski, Paweł.  
Wrocław University of Science and Technology.

PT32

**Purcell-enhanced generation of indistinguishable on-chip single photons**

Liu, Feng<sup>1</sup>; Brash, Alistair J.<sup>1</sup>; O'hara, John<sup>1</sup>; Martins, Luis M.p.p.<sup>1</sup>; Phillips, Catherine L.<sup>1</sup>; Coles, Rikki J.<sup>1</sup>; Royall, Ben<sup>1</sup>; Clarke, Ed<sup>1</sup>; Bentham, Chris<sup>1</sup>; Prtljaga, Nikola<sup>1</sup>; Itskevich, Igor E.<sup>2</sup>; Wilson, Luke R.<sup>1</sup>; Skolnick, Maurice S.<sup>1</sup>; Fox, Mark<sup>1</sup>.

<sup>1</sup> University of Sheffield; <sup>2</sup> University of Hull.

PT33

**Built in electric field effects on the conversion efficiency in intermediate band solar cells.**

El Aouami, Asmae<sup>1</sup>; Mohamed, El Haouari<sup>2</sup>; El-Yadri, Mohammed<sup>1</sup>; Aghoutane, Noureddine<sup>1</sup>; Feddi, El Mustapha<sup>1</sup>; Dujardin, Francis<sup>3</sup>.

<sup>1</sup> Laboratoire de Matière Condensée et Sciences Interdisciplinaires (LaMCSci), Group of Optoelectronic of Semiconductors and Nanomaterials, ENSET, Mohammed V University in Rabat, Morocco; <sup>2</sup> Centre Régional des Métiers de l'Éducation et de Formation (CRMEF), Tanger, Morocco; <sup>3</sup> Institut de Chimie, Physique et Matériaux, LCP-A2MC, Université de Lorraine, Metz, France.

PT34

**Light hole excitons in elongated nanowire quantum dots**

Kimon, Moratis<sup>1</sup>; Marta, Orru<sup>1</sup>; Edith, Bellet-Amalric<sup>2</sup>; Eric, Robin<sup>2</sup>; Gilles, Nogues<sup>1</sup>; Fabrice, Donatini<sup>1</sup>; Regis, Andre<sup>1</sup>; Yann-Michel, Niquet<sup>2</sup>; Joel, Cibert<sup>1</sup>; David, Ferrand<sup>1</sup>.

<sup>1</sup> University Grenoble-Alpes / Institut Neel CNRS; <sup>2</sup> University Grenoble-alpes / CEA-INAC.

PT35

**Dynamics of the resonantly excited spinor exciton-polariton systems in GaAs microcavities: coherence, polarization and distributions in real and momentum spaces.**

Kulakovskii, Vladimir<sup>1</sup>; Demenev, Andrey<sup>1</sup>; Brichtkin, Andrey<sup>1</sup>; Gavrilov, Sergey<sup>1</sup>; Cippus, Nikolay<sup>2</sup>.

<sup>1</sup> Institute of solid state physics RAS; <sup>2</sup> Skolkovo Institute of Science and Technology.

PT36

**Atomic scale heterostructures: Controlling the Reststrahlen band with Superlattice Design**

Chatzakis, Ioannis<sup>1</sup>; Giles, Alexander<sup>1</sup>; Ratchford, Daniel<sup>1</sup>; Winta, Christopher<sup>2</sup>; Passler, Nikolai<sup>2</sup>; Dev, Pratibha<sup>3</sup>; Katzer, Scott<sup>1</sup>; Rzdolsk, Ilya<sup>2</sup>; Ellis, Chase<sup>1</sup>; Tischler, Joe<sup>4</sup>; Vurgaftman, Igor<sup>1</sup>; Reinecke, Tom<sup>1</sup>; Bassim, Nabil<sup>1</sup>; Winterstein, Jonathan<sup>4</sup>; Nepal, Neeraj<sup>4</sup>; Wolf, Martin<sup>5</sup>; Paarmann, Alex<sup>5</sup>; Caldwell, Joshua D.<sup>6</sup>.



<sup>1</sup> U.S. Naval Research Laboratory; <sup>2</sup> Physikalische Chemie, Fritz-Haber-Institut der MPG; <sup>3</sup> Howard University, Department of Physics and Astronomy; <sup>4</sup> U.S. Naval Research Laboratory; <sup>5</sup> Physikalische Chemie, Fritz-Haber-Institut der MPG; <sup>6</sup> Electrical and Mechanical Engineering, Vanderbilt University.

PT37

**Investigation of Unpatterned Etching of Nanostructures in Immobilized Cubic-Boron Nitride for Infrared Nanophotonic Elements**

Chatzakis, Ioannis <sup>1</sup>; Krishna, Athith <sup>2</sup>; Giles, Alexander <sup>1</sup>; Sharac, Nicholas <sup>1</sup>; Spencer, Michael G. <sup>3</sup>; Caldwell, Joshua D <sup>4</sup>.

<sup>1</sup> U.S. Naval Research Laboratory; <sup>2</sup> School of Electrical and Computer Engineering, Cornell University; <sup>3</sup> School of Electrical and Computer Engineering, Cornell University; <sup>4</sup> Electrical and Mechanical Engineering, Vanderbilt University.

PT38

**Space-and-time coherent evolution of spatially indirect excitons: the role of the internal dynamics**

Goldoni, Guido <sup>1</sup>; Grasselli, Federico <sup>2</sup>; Bertoni, Andrea <sup>3</sup>.

<sup>1</sup> University of Modena and Reggio Emilia; <sup>2</sup> International School for Advanced Studies; <sup>3</sup> CNR-NANO S3, Istituto Nanoscienze.

PT40

**Temperature and Pressure Effects on binding energy of a (D<sup>+</sup>,X) complex in a Spherical Quantum Dot.**

Aghoutane, Noredine <sup>1</sup>; Feddi, Elmustapha <sup>1</sup>; El-Yadri, Mohammed <sup>1</sup>; Elaouami, Asmae <sup>1</sup>; Dujardin, Francis <sup>2</sup>.

<sup>1</sup> Mohammed V University; <sup>2</sup> Lorraine university.

PT41

**Tomography of the optical polarization rotation induced by a single quantum dot in a cavity**

Paul, Hilaire; Carlos, Anton; Clément, Millet; Abdelmounaim, Harouri; Aristide, Lemaître; Isabelle, Sagnes; Olivier, Krebs; Norberto Daniel, Lanzillotti-Kimura; Niccolo, Somaschi; Pascale, Senellart; Loïc, Lanco.

Center of nanosciences and Nanotechnology (C2N), University Paris-Saclay, Marcoussis, France.

PT42

**InAs-based nanowire quantum structures for advanced infrared photodetection**

Zhuang, Qiangdong <sup>1</sup>; Jin, Z. M. <sup>2</sup>; Alradhi, H. <sup>2</sup>; Chen, X. R. <sup>3</sup>; Shao, J. <sup>3</sup>; Fang, H. H. <sup>3</sup>; Hu, W. D. <sup>3</sup>; Li, H. D. <sup>1</sup>; Wang, Z. M. <sup>1</sup>; Sanchez, A. M. <sup>4</sup>.

<sup>1</sup> Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China; <sup>2</sup> Physics department, Lancaster University; <sup>3</sup> Physics Department, Warwick University; <sup>4</sup> National Laboratory for Infrared Physics, Shanghai Institute of Technical Physics, Chinese Academy of Sciences.



PT43

**Unconventional Lasing from Quantum Dots in the Cavity-QED Regime**

Moody, Galan<sup>1</sup>; Segnon, Mawussey<sup>2</sup>; Belabas, Nadia<sup>3</sup>; Jahnke, Frank<sup>2</sup>; Silverman, Kevin<sup>1</sup>; Mirin, Richard<sup>1</sup>; Gies, Christopher<sup>2</sup>; Stevens, Martin<sup>1</sup>.

<sup>1</sup> NIST; <sup>2</sup> University of Bremen; <sup>3</sup> CNRS-LPN.

PT44

**Deep level transient spectroscopy characterisation of 107 MeV Kr<sup>2+</sup> irradiated N-doped 4H-SiC**

Otomoso, Ezekiel; Meyer, Walter Ernt; Auret, Francois Danie.

University of Pretoria.

PT45

**Hall effect and magnetization measurements of Cobalt (Co) doped Zinc Oxide (ZnO) polycrystallines samples.**

Bautista, Nelly; Mariño, Álvaro.

Universidad Nacional de Colombia.

PT46

**MOVPE growth and transport properties of rhombohedral Bi<sub>2-x</sub>Sb<sub>x</sub>Te<sub>3-y</sub>Se<sub>y</sub> films**

Kuznetsov, P.i.; Shchamkhalova, Bagun; Yakushcheva,, G.g.; Jitov, V.a.; Sizov, V.e.; Luzanov, V.a.; Yapaskurt, V.o.; Shcherbakov, V.d..

IRE RAS.

PT47

**Cu Ion Implantation improvesthe performance of Si film anode used in Lithium ion battery**

Hu, Zheng-Guang; Cheng, Guo-An; Zheng, Rui-Ting.

Beijing Normal University.

PT48

**AlGaN avalanche photodiodes based on self-assembled nano-pattern AlN templates**

Chen, Dunjun; Xie, Zili; Xiu, Xiangqian.

Nanjing University.

PT49

**GaN nanorods converted from beta-Ga<sub>2</sub>O<sub>3</sub>**

Xiu, Xiangqian; Hua, Xuemei; Li, Yuewen; Chen, Peng; Xie, Zili; Chen, Dunjun; Zhang, Rong; Zheng, Youdou.

Nanjing university.





PT50

**Stranski-Krastanov growth of InN nanocolumns on Si(111) substrates**

Lopez-Lopez, Maximo<sup>1</sup>; Casallas-Moreno, Yenny Lucero<sup>2</sup>; Gallardo-Hernández, Salvador<sup>1</sup>; Ramírez-López, Manolo<sup>2</sup>; Arias-Cerón, Jose Saul<sup>1</sup>; Santoyo-Salazar, Jaime<sup>1</sup>; Mendoza-Álvarez, Julio<sup>1</sup>.

<sup>1</sup> Centro de Investigación y de Estudios Avanzados del IPN; <sup>2</sup> Instituto Politécnico Nacional - UPIITA.

PT51

**Cubic In<sub>x</sub>Ga<sub>1-x</sub>N/GaN quantum wells grown on GaAs(001) by molecular beam epitaxy and migration enhanced epitaxy**

Casallas-Moreno, Yenny Lucero<sup>1</sup>; Gallardo-Hernández, Salvador<sup>2</sup>; Hernández Gutiérrez, Carlos<sup>2</sup>; Arias-Cerón, Jose Saul<sup>2</sup>; López-López, Maximo<sup>2</sup>.

<sup>1</sup> Instituto Politecnico Nacional UPIITA; <sup>2</sup> Centro de Investigación y de Estudios Avanzados del IPN.

PT52

**Piezotronic and Hall properties of individual ZnO microwire**

Shin, Dong-Hoon<sup>1</sup>; Kim, Hakseong<sup>2</sup>; Kwon, Min-Hee<sup>1</sup>; Lee, Sang Wook<sup>1</sup>.

<sup>1</sup> Ewha Womans University; <sup>2</sup> Korea Research Institute of Standards and Science.

PT53

**Study of electron-related optical responses in Tietz-Hua quantum well: Role of applied external fields**

Ungan, Fatih<sup>1</sup>; Yesilgul, Unal<sup>1</sup>; Sakiroglu, Serpil<sup>2</sup>; Kasapoglu, Esin<sup>1</sup>; Sari, Huseyin<sup>1</sup>; Sökmen, Ismail<sup>2</sup>.

<sup>1</sup> Cumhuriyet University; <sup>2</sup> Dokuz Eylül University.

PT54

**Influence of properties of contacts on electromagnetic properties of semiconductor superlattices**

Shorokhov, Alexey<sup>1</sup>; Prudskikh, Natalia<sup>1</sup>; Alekseev, Kirill<sup>2</sup>.

<sup>1</sup> National Research Mordovia State University; <sup>2</sup> Loughborough University.

PT55

**Germanium Quantum Wells in the Conduction Band for Terahertz Emission on Silicon Substrates**

Ciano, Chiara<sup>1</sup>; Montanari, Michele<sup>1</sup>; Capellini, Giovanni<sup>2</sup>; Di Gaspare, Luciana<sup>1</sup>; Virgilio, Michele<sup>3</sup>; Paul, Douglas J.<sup>4</sup>; Scalari, Giacomo<sup>5</sup>; Birner, Stefan<sup>6</sup>; Grange, Thomas<sup>6</sup>; Baldassarre, Leonetta<sup>7</sup>; Ortolani, Michele<sup>7</sup>; De Seta, Monica<sup>1</sup>.

<sup>1</sup> University of Roma Tre; <sup>2</sup> IHP; <sup>3</sup> University of Pisa; <sup>4</sup> University of Glasgow; <sup>5</sup> ETH Zurich; <sup>6</sup> nextnano GmbH; <sup>7</sup> University La Sapienza.



PT56

**THz emission and detection by quantum Faraday effect in silicon nanosandwich-structures**

Bagraev, Nikolay; Khromov, Vyacheslav; Klyachkin, Leonid; Malyarenko, Anna. Ioffe Institute.

PT57

**THz Spectroscopy of Surface States in 3D Topological Insulators based on Strained High Mobility HgTe Films**

Candussio, Susanne<sup>1</sup>; Otteneder, Maximilian<sup>1</sup>; Kozlov, Dmitriy<sup>2</sup>; Dantscher, Kathrin-Maria<sup>1</sup>; Hubmann, Stefan<sup>1</sup>; Tarasenko, Sergey<sup>3</sup>; Bel'kov, Vasily<sup>3</sup>; Kvon, Ze-Don<sup>2</sup>; Budkin, Grigory<sup>3</sup>; Dvoretzky, S.a.<sup>3</sup>; Ganichev, Sergey<sup>1</sup>.

<sup>1</sup> Terahertz Center; <sup>2</sup> A.V. Rzhanov Institute of Semiconductor Physics; <sup>3</sup> Ioffe Institute.

PT58

**Terahertz Detector Structure Using Silicon CMOS**

Liu, Liyuan; Liu, Jian; Wu, Nanjian. Institute of Semiconductors, CAS.

PT59

**Electronic properties of semiconductor elliptical quantum rings**

Vinasco, Juan Alejandro<sup>1</sup>; Radu, Adrian<sup>2</sup>; Kasapoglu, Esin<sup>3</sup>; Restrepo Arango, Ricardo León<sup>4</sup>; Morales Aramburu, Álvaro Luis<sup>1</sup>; Feddi, Elmoustapha<sup>5</sup>; Mora Ramos, Miguel Eduardo<sup>6</sup>; Duquecheverri, Carlos Alberto<sup>1</sup>.

<sup>1</sup> Universidad de Antioquia; <sup>2</sup> University of Bucharest; <sup>3</sup> Cumhuriyet University; <sup>4</sup> Universidad EIA; <sup>5</sup> Mohammed V University in Rabat; <sup>6</sup> Universidad Autónoma del Estado de Morelos.

PT60

**Broadband terahertz modulation in electrostatically-doped artificial trilayer graphene**

Chatzakis, Ioannis; Li, Zhen; Benderskii, Alexander V.; Cronin, Stephen B.. University of Southern California,.

PT61

**New "nano surface texture & nanoFWHM" of Si- based materials for nanomulti emitters, nano capacitors, nanoelectronic Gates and nanosolar cell**

Qasim Saleh, Professor Doctor Kifah.

Ministry of Higher Education ,Supervision & Scientific Evaluation.

PT62

**Strain Engineering for Orthorhombic Hybrid Perovskite CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>: The Potential Application as a Photocatalyst**

Al-Shami, Ahmed Ahmed Mohsen.

Mohammed V.



PT63

**Structural optimization of superlattice infrared photodetectors by evolutionary computation methods**

C. B. L. Póvoa, Rogério<sup>1</sup>; H. Pereira, Pedro<sup>1</sup>; M. Torelly, Guilherme<sup>1</sup>; M. Dias, Douglas<sup>2</sup>; M. Penello, Germano<sup>3</sup>; L. Souza, Patrícia<sup>1</sup>; A. C. Horta, Bruno<sup>3</sup>.

<sup>1</sup>PUC-Rio; <sup>2</sup>UERJ; <sup>3</sup>UFRJ.

PT64

**GaAs nanowire thermal oxidation by optical pumping**

Sampaio Pimenta., Ana Clara<sup>1</sup>; Limborço, Henrique<sup>2</sup>; Ramos, Sérgio L.<sup>3</sup>; González, Juan C.<sup>1</sup>; Matinaga, Franklin M.<sup>1</sup>.

<sup>1</sup>ICEX – UFMG; <sup>2</sup>UFMG, UFMG.; <sup>3</sup>UFMG.

*Poser Sesión 26/07/2018 18:00*

PTH01

**Expanded functionalities of a quantum dot-based transistor**

Lopez-Richard, Victor<sup>1</sup>; Hartmann, Fabian<sup>2</sup>; Maier, Patrick<sup>2</sup>; Rebello Sousa Dias, Mariama<sup>1</sup>; Emmerling, Monika<sup>2</sup>; Schneider, Christian<sup>2</sup>; Castelano, Leonardo<sup>1</sup>; Kamp, Martin<sup>2</sup>; Marques, Gilmar<sup>1</sup>; Pershin, Yuriy<sup>3</sup>; Worschech, Lukas<sup>2</sup>; Hofling, Sven<sup>2</sup>.

<sup>1</sup> Universidade Federal de Sao Carlos; <sup>2</sup> Technische Physik, Universität Würzburg; <sup>3</sup> University of South Carolina.

PTH02

**A route to efficiently implement qutrit gates in double quantum dots**

Rivera-Ruiz, Carlos<sup>1</sup>; De Lima, Emanuel<sup>1</sup>; Fanchini, Felipe<sup>2</sup>; Lopez-Richard, Victor<sup>1</sup>; Castelano, Leonardo<sup>1</sup>.

<sup>1</sup> Federal University at Sao Carlos; <sup>2</sup> Sao Paulo State University.

PTH03

**Efficient Implementation of the Universal Set of Quantum Gates in Quantum Dots**

Castelano, Leonardo<sup>1</sup>; De Lima, Emanuel<sup>2</sup>; Madureira, Justino<sup>3</sup>; Degani, Marcos<sup>4</sup>; Maialle, Marcelo<sup>4</sup>.

<sup>1</sup> Federal University at Sao carlos; <sup>2</sup> Federal University at Sao Carlos; <sup>3</sup> Federal University at Uberlandia; <sup>4</sup> The University of Campinas.

PTH04

**Double quantum dots in undoped <sup>28</sup>Si/SiGe**

Schauer, Floyd<sup>1</sup>; Hollmann, Arne<sup>2</sup>; Schmidbauer, Andreas<sup>1</sup>; Neumann, Christian<sup>1</sup>; Weinberger, Tobias<sup>1</sup>; Sawano, Kentarou<sup>3</sup>; Struck, Tom<sup>2</sup>; Leonhardt, Tim<sup>2</sup>; Schreiber, Lars<sup>2</sup>; Bougeard, Dominique<sup>1</sup>.

<sup>1</sup> Institut für Experimentelle und Angewandte Physik, Universität Regensburg; <sup>2</sup> JARA-FIT Institute for Quantum Information, Forschungszentrum Jülich and RWTH Aachen University; <sup>3</sup> Advanced Research Laboratories, Tokyo City University.



PTH05

**Singlet-triplet population transfer via dark state in a double-quantum-dot qubit**

Z. Maialle, Marcelo<sup>1</sup>; H. Degani, Marcos<sup>1</sup>; K. Castelano, Leonardo<sup>2</sup>.

<sup>1</sup>FCA- State University of Campinas - UNICAMP; <sup>2</sup>Physics Department. Univ. Federal de São Carlos.

PTH07

**Charge distribution effects and optical response of an off-axis donor in elongated quantum ring**

Marín, Jairo<sup>1</sup>; Gutierrez, William<sup>2</sup>; Mikhailov, Ilia<sup>2</sup>.

<sup>1</sup>Universidad Nacional de Colombia/Escuela de Física; <sup>2</sup>Universidad Industrial de Santander/Escuela de Física.

PTH08

**Long-range entanglement generation between nuclear ensembles in quantum dots**

Bello Gamboa, Miguel<sup>1</sup>; Benito, Mónica<sup>2</sup>; Schuetz, Martin J. A.<sup>3</sup>; Platero, Gloria<sup>1</sup>; Giedke, Geza<sup>4</sup>.

<sup>1</sup>Material Science Institute of Madrid, CSIC, 28049 Cantoblanco, Madrid; <sup>2</sup>Department of Physics, University of Konstanz, 78464 Konstanz; <sup>3</sup>Department of Physics, Harvard University, 02138 Cambridge; <sup>4</sup>Donostia International Physics Center, 20018 Donostia.

PTH09

**The role of the phase accumulation in Landau-Zener-Stückelberg-Majorana dynamics in an electrically driven flip of a hole spin**

Pasek, Wojciech Julian; Maialle, Marcelo Zoega; Degani, Marcos Henrique.

School of Applied Sciences, University of Campinas.

PTH10

**Spin Bath Decoherence in quantum systems**

Gómez León, Álvaro.

ICMM.

PTH11

**Caractérisation physico-chimique des rejets de flottation des phosphates et leurs impacts environnementaux**

Bouchdoug, Mohammed; Mahrouz, Mostafa; Jaouad, Abderrahim; Elfadil, Saida.

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PTH12

**Structural and lattice dynamic properties of Mg<sub>2</sub>Sn and Mg<sub>2</sub>Pb compounds.**

Chaouche, Yassine.

University of Larbi Tébessi.

PTH13

**Signatures of a  $4\pi$ -periodic supercurrent in the voltage response of a capacitively-shunted Josephson junction**

Picó-Cortés, Jordi<sup>1</sup>; Domínguez, Fernando<sup>2</sup>; Platero, Gloria<sup>1</sup>.

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PTH14

**Quantum simulations with a linear array of semiconductor quantum dots**

Van Diepen, Cornelis Jacobus<sup>1</sup>; Hensgens, Toivo<sup>1</sup>; Fujita, Takafumi<sup>1</sup>; Janssen, Laurens<sup>1</sup>; Li, Xiao<sup>2</sup>; Reichl, Christian<sup>3</sup>; Wegscheider, Werner<sup>3</sup>; Das Sarma, Sankar<sup>2</sup>; Vandersypen, Lieven Mark Koenraad<sup>1</sup>.

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PTH15

**Spin-orbit coupling and magnetic field dependence of carrier states in a self-assembled quantum dot**

Gawarecki, Krzysztof.

Wrocław University of Science and Technology.

PTH16

**Tunable energy dispersion in Si quantum-dot qubits with atomic-scale disorder**

Abadillo-Uriel, José Carlos<sup>1</sup>; Thorgrimsson, Brandur<sup>2</sup>; Kim, Dohun<sup>3</sup>; Smith, L. W.<sup>2</sup>; Simmons, C. B.<sup>2</sup>; Ward, Daniel R.<sup>2</sup>; Foote, Ryan H.<sup>2</sup>; Corrigan, J.<sup>2</sup>; Savage, D. E.<sup>4</sup>; Lagally, M. G.<sup>4</sup>; Calderón, M. J.<sup>1</sup>; Coppersmith, S. N.<sup>2</sup>; Eriksson, M. A.<sup>2</sup>; Friesen, Mark<sup>2</sup>.

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PTH17

**Excess conductivity and pseudogap in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> nanolayers**

Omelchenko, Lyudmila; Solovjov, Andrei.

B. Verkin ILTPE of NASU - B. Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine.

PTH18

**Particle and wave transport in driven quantum networks of harmonic oscillators**

Babajanov, Doniyor<sup>1</sup>; Yusupov, Jambul<sup>1</sup>; Matyoqubov, Hikmatjon<sup>2</sup>; Matrasulov, Davron<sup>1</sup>.

<sup>1</sup> Turin Polytechnic University in Tashkent; <sup>2</sup> Urgench State University.

PTH19

**All-electric optical key switch and the seeming paradox of increasing on-off resolution for higher T**

Lopez-Richard, Victor<sup>1</sup>; Hartmann, Fabian<sup>2</sup>; Pfenning, Andreas<sup>2</sup>; Rebello Sousa Dias, Mariama<sup>1</sup>; Langer, Fabian<sup>2</sup>; Castelano, Leonardo<sup>1</sup>; Kamp, Martin<sup>2</sup>; Marques, Gilmar<sup>1</sup>; Worschech, Lukas<sup>2</sup>; Hofling, Sven<sup>2</sup>.

<sup>1</sup> Universidade Federal de Sao Carlos; <sup>2</sup> Universität Würzburg.

PTH20

**The effect of dissipative impedance on tunnelling in hybrid superconductor—normal-metal structures**

Bubanja, Vladimir.

Measurement Standards Laboratory of New Zealand.



PTH21

**Electronic transport through an aromatic molecular wire with Terphenyl units**

Ojeda Silva, Judith Helena<sup>1</sup>; Ribeiro, Allan Victor<sup>2</sup>.

<sup>1</sup> UNIVERSIDAD PEDAGÓGICA Y TECNOLÓGICA DE COLOMBIA; <sup>2</sup> Instituto Federal de Educação, Ciência e Tecnologia de São Paulo.

PTH22

**Interacting and noninteracting molecular tunnel junctions: Temperature and magnetic effects**

Sierra Seco De Herrera, Miguel Ambrosio<sup>1</sup>; Sánchez, David<sup>1</sup>; Garrigues, Alvar R.<sup>2</sup>; Del Barco, Enrique<sup>2</sup>; Wang, Lejia<sup>3</sup>; Nijhuis, Christian A.<sup>4</sup>.

<sup>1</sup> IFISC (UIB-CSIC); <sup>2</sup> University of Central Florida; <sup>3</sup> Ningbo University of Technology; <sup>4</sup> National University of Singapore.

PTH23

**Superluminal physics of electrons in a miniband superlattice under coherent phonon driving**

Apostolakis, Apostolos<sup>1</sup>; Alekseev, Kirill<sup>2</sup>; Kusmartsev, Feo<sup>2</sup>; Balanov, Alexander<sup>2</sup>.

<sup>1</sup> Department of Condensed Matter Theory, Institute of Physics, CAS; <sup>2</sup> Department of Physics, Loughborough University.

PTH24

**Optical phonon scattering on electronic mobility in asymmetric AlGaIn/GaN double heterostructures**

Chai, Yajing; Zan, Yuhai; Ban, Shiliang.

School of Physical Science and Technology, Inner Mongolia University.

PTH25

**Electron transport and thermoelectricity in quantum dot Cooper-pair splitters**

Hussein, Robert<sup>1</sup>; Kohler, Sigmund<sup>2</sup>; Belzig, Wolfgang<sup>1</sup>; Giazotto, Francesco<sup>3</sup>;

Governale, Michele<sup>4</sup>; Braggio, Alessandro<sup>3</sup>.

<sup>1</sup> University of Konstanz; <sup>2</sup> Instituto de Ciencia de Materiales de Madrid, CSIC; <sup>3</sup> Istituto Nanoscienze, CNR; <sup>4</sup> Victoria University of Wellington.

PTH26

**Photoconductive mode of an asymmetric superlattice infrared photodetector with leaky electronic states**

Pereira, Pedro H.<sup>1</sup>; Penello, Germano M.<sup>2</sup>; Pires, Mauricio P.<sup>2</sup>; Svico, Deborah<sup>3</sup>; Gmachl, Claire<sup>3</sup>; Souza, Patricia L.<sup>1</sup>.

<sup>1</sup> Pontificia Universidade Católica do Rio de Janeiro; <sup>2</sup> Universidade Federal do Rio de Janeiro; <sup>3</sup> Princeton University.

PTH27

**Superlattice solar cells based on GaAs/GaInNAs**

Contreras-Solorio, David Armando<sup>1</sup>; Cabrera, Carlos Iván<sup>1</sup>; Enciso, Agustín<sup>1</sup>; Rimada, Julio César<sup>2</sup>; Hernández, Luis<sup>3</sup>.

<sup>1</sup> Autonomous University of Zacatecas, Academic Unit of Physics; <sup>2</sup> University of Havana, Solar Cell Laboratory (IMRE); <sup>3</sup> University of Havana, Faculty of Physics.



PTH28

**Relaxation and decoherence of hot electrons from single-electron sources due to acoustic phonon emission**

Clark, Lewis<sup>1</sup>; Johnson, Nathan<sup>2</sup>; Kataoka, Masaya<sup>3</sup>; Emary, Clive<sup>1</sup>.

<sup>1</sup>Newcastle University; <sup>2</sup>NTT Basic Research Laboratories; <sup>3</sup>National Physical Laboratory.

PTH29

**Characterization of a surface plasmon antenna fabricated on a single heterojunction structure**

Fukai, Rio; Sakai, Yuji; Nakagawa, Tomohiro; Kiyama, Haruki; Oiwa, Akira.

The Institute of Scientific and Industrial Research, Osaka University.

PTH30

**Electronic phase transitions in thin films of Bi<sub>1-x</sub>Sb<sub>x</sub> solid solutions**

Rogacheva, Elena<sup>1</sup>; Doroshenko, Anna<sup>1</sup>; Nashchekina, Olga<sup>2</sup>.

<sup>1</sup>National Technical University "Kharkiv Polytechnical Institute"; <sup>2</sup>National Technical University "Kharkiv Polytechnical Institute".

PTH31

**Size effects in transport properties of Bi<sub>1-x</sub>Sb<sub>x</sub> thin films**

Rogacheva, Elena; Orlova, Daria; Nashchekina, Olga.

National Technical University "Kharkiv Polytechnical Institute".

PTH33

**Non-linear spin dynamics in helical molecules: soliton stability**

Contreras, Ana; Domínguez-Adame, Francisco; Díaz, Elena.

Universidad Complutense.

PTH34

**Quench dynamics in superconducting nanojunctions: metastability and dynamical phase transitions**

Seoane Souto, Rubén; Martín Rodero, Álvaro; Levy Yeyati, Alfredo.

Universidad Autónoma de Madrid.

PTH35

**Self-consistent dynamics in interacting nanojunctions: the fate of bistability**

Seoane Souto, Rubén<sup>1</sup>; Avriller, Rémi<sup>2</sup>; Levy Yeyati, Alfredo<sup>1</sup>; Martín Rodero, Álvaro<sup>1</sup>.

<sup>1</sup>Universidad Autónoma de Madrid; <sup>2</sup>Bordeaux university.

PTH36

**Lattice thermal transport in graphene nanostructures: a molecular dynamics and DFTB study**

Saiz Bretín, Marta<sup>1</sup>; Medrano Sandonas, Leonardo<sup>2</sup>; Malyshev, Andrey<sup>1</sup>; Gutierrez, Rafael<sup>2</sup>; Cuniberti, Gianaurelio<sup>2</sup>; Domínguez-Adame, Francisco<sup>1</sup>.

<sup>1</sup>Universidad Complutense; <sup>2</sup>TU Dresden.

PTH37

**Non-invasive refrigeration with superconducting single-electron junctions**

Sánchez, Rafael.



Universidad Autónoma de Madrid.

PTH38

**The fabricate and property of the highly ordered InGaN/GaN elliptic nanoroad arrays on wafer scale**

Xie, Zili; Tao, Tao; Zhao, Hong; Chen, Peng; Chu, Jiapeng; Zhi, Ting; Zhuang, Zhe; Liu, Bin; Chen, Dunjun; Zhang, Rong; Zheng, Youdou.

Nanjing University.

PTH39

**Graphene-ferromagnet based spin lenses**

Saiz-Bretín, Marta; Baba, Yuriko; Malyshev, Andrey V.; Domínguez-Adame, Francisco.

Universidad Complutense.

PTH40

**Interband optical absorption in ZnO/Mg<sub>x</sub>Zn<sub>1-x</sub>O core-shell nanowires**

Xue, Zhongxian; Qu, Yuan; Ban, Shiliang.

School of Physical Science and Technology, Inner Mongolia University.

PTH41

**PT-symmetric quantum switch operating near exceptional point**

Gorbatsevich, Alexander<sup>1</sup>; Krasnikov, G.ya.<sup>2</sup>; Shubin, N.m.<sup>3</sup>.

<sup>1</sup>P.N. Lebedev Physical Institute of RAS; <sup>2</sup>JSC MERI, 1st Zapadnyi pr.; <sup>3</sup>P.N.Lebedev Physical Institute of RAS; JSC MERI, 1st Zapadnyi pr.; ; National Research University of Electronic Technology - MIET.

PTH42

**Thermoelectric performance of topological boundary modes**

Böhling, Sina<sup>1</sup>; Engelhardt, Georg<sup>2</sup>; Platero, Gloria<sup>3</sup>; Schaller, Gernot<sup>1</sup>.

<sup>1</sup>Institut für Theoretische Physik, Technische Universität Berlin; <sup>2</sup>Beijing Computational Science Research Center; <sup>3</sup>Instituto de Ciencia de Materiales de Madrid, CSIC.

PTH43

**Classical Tomography of Single-Electron Wavepacket Energy and Time Distributions**

Fletcher, Jonathan<sup>1</sup>; Johnson, Nathan<sup>1</sup>; Locane, Elina<sup>2</sup>; See, Patrick<sup>1</sup>; Jones, Geb<sup>3</sup>; Griffiths, Jon<sup>3</sup>; Farrer, Ian<sup>3</sup>; Ritchie, Dave<sup>3</sup>; Brouwer, Piet<sup>2</sup>; Kashcheyevs, Vyacheslavs<sup>4</sup>; Kataoka, Masaya<sup>1</sup>.

<sup>1</sup>National Physical Laboratory; <sup>2</sup>Dahlem Center for Complex Quantum Systems; <sup>3</sup>Cavendish Laboratory; <sup>4</sup>Faculty of Physics and Mathematics.

PTH44

**Electronic transport at high magnetic fields in broken-gap nanowire heterostructures**

Pezzini, Sergio<sup>1</sup>; Rocci, Mirko<sup>2</sup>; Bellani, Vittorio<sup>3</sup>; Gomes, Umesh<sup>2</sup>; Zannier, Valentina<sup>2</sup>; Clericò, Vito<sup>4</sup>; Diez, Enrique<sup>4</sup>; Diaz Fernandez, Alvaro<sup>5</sup>; Diaz Garcia, Elena<sup>5</sup>; Roddaro, Stefano<sup>2</sup>; Sorba, Lucia<sup>2</sup>; Beltram, Fabio<sup>2</sup>; Rossella, Francesco<sup>2</sup>.

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PTH45

**Heterostructured GaN/AlN nanowires with linear photoresponse**

Maria, Spies <sup>1</sup>; Jakub, Polaczyński <sup>1</sup>; Akhil, Ajay <sup>2</sup>; Dipankar, Kalita <sup>2</sup>; Jonas, Lähnemann <sup>2</sup>; Bruno, Gayral <sup>2</sup>; Martien I., Den Hertog <sup>1</sup>; Eva, Monroy <sup>2</sup>.

<sup>1</sup>University Grenoble-Alpes, CNRS, Institut Néel, Grenoble, France; <sup>2</sup>University Grenoble-Alpes, CEA, INAC, Grenoble, France.

PTH46

**Charge Reconfiguration in Isolated Quantum Dot Arrays**

Bayer, Johannes C.; Wagner, Timo; Rugeramigabo, Eddy P.; Haug, Rolf J..  
Institut für Festkörperphysik, Leibniz Universität Hannover.

PTH47

**Recursive scattering matrix method for multi-terminal nanostructures**

Ramírez, Carlos; Medina-Amayo, Luis Arturo.  
Universidad Nacional Autónoma de México.

PTH48

**Bias-dependent forces in C<sub>60</sub> single-molecule junctions**

Leitherer, Susanne <sup>1</sup>; R. Papior, Nick <sup>1</sup>; Brand, Jonathan <sup>2</sup>; Neel, Nicolas <sup>2</sup>; Kröger, Jörg <sup>2</sup>; Brandbyge, Mads <sup>1</sup>.

<sup>1</sup>Technical University of Denmark; <sup>2</sup>Technische Universität Ilmenau.

PTH49

**Spin tuning with structure asymmetry, impurities, and defects in quantum dots**

Lopez-Richard, Victor <sup>1</sup>; Paes Lima, Matheus <sup>1</sup>; Cabral, Luis <sup>1</sup>; Sabino, Fernando <sup>2</sup>; Lopes-Oliveira, Vivaldo <sup>3</sup>; Da Silva, Juarez <sup>2</sup>; Marques, Gilmar <sup>1</sup>.

<sup>1</sup>Universidade Federal de Sao Carlos; <sup>2</sup>Universidade de Sao Paulo; <sup>3</sup>Universidade Estadual de Mato Grosso do Sul.

PTH51

**Trend reversal of exciton spin-transfer rates in diluted magnetic semiconductors with in-plane magnetic field**

Ungar, Florian <sup>1</sup>; Cygorek, Moritz <sup>2</sup>; Axt, Vollrath Martin <sup>1</sup>.

<sup>1</sup>University of Bayreuth; <sup>2</sup>University of Ottawa.

PTH52

**Persistent spin helix in II-VI semiconductors: origin and manipulation**

Anghel, Sergiu <sup>1</sup>; Passmann, Felix <sup>1</sup>; Poshakinskiy, Alexander <sup>2</sup>; Tarasenko, Sergey <sup>2</sup>; Karczewski, Grzegorz <sup>3</sup>; Wojtowicz, Tomasz <sup>3</sup>; Bristow, Alan D. <sup>4</sup>; Betz, Markus <sup>1</sup>.

<sup>1</sup>Technische Universität Dortmund; <sup>2</sup>Ioffe Institute; <sup>3</sup>Institute of Physics, Polish Academy of Science; <sup>4</sup>Department of Physics and Astronomy, West Virginia University.



PTH53

**Super-long-living spin excitations in a purely electronic two-dimensional unpolarized gas in a perpendicular magnetic field.**

Sergey, Dickmann.

Institute of Solid State Physics of RAS.

PTH54

**Spin decoherence mechanisms of a single electron bound to donor in a CdTe Quantum Well**

Garcia Arellano, Guadalupe<sup>1</sup>; Bernardot, Frédéric<sup>1</sup>; Karczewski, Grzegorz<sup>2</sup>; Testelin, Christophe<sup>1</sup>; Chamarro, Maria<sup>1</sup>.

<sup>1</sup> Sorbonne Universités, Institut de NanoSciences de Paris INSP; <sup>2</sup> Polish Academy of Sciences.

PTH55

**Current induced torque driven ferromagnetic resonance in freely suspended GaMnAs nanostructures**

Yang, Chanuk; Han, Sanghyeon; Kim, Kitae; Park, Seondo; Kang, Seokwon; Park, Yun Daniel.

Seoul National University.

PTH56

**Spin transistor effect in ultra-narrow silicon quantum wells**

Bagraev, Nikolay; Khromov, Vyacheslav; Klyachkin, Leonid; Malyarenko, Anna. Ioffe Institute.

PTH58

**Rashba spin-orbit coupling in polygonal semiconductor nanowires**

Wójcik, Pawel<sup>1</sup>; Bertoni, Andrea<sup>2</sup>; Goldoni, Guido<sup>3</sup>.

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PTH59

**Spin Mobility in a 2DEG with Persistent Spin Helices**

Luengo-Kovac, Marta<sup>1</sup>; Moraes, Flavio C.d.<sup>2</sup>; Ferreira, Gerson J.<sup>3</sup>; Ribeiro, Amina S.I.<sup>2</sup>; Gusev, Gennady M.<sup>2</sup>; Bakarov, Askhat K.<sup>4</sup>; Sih, Vanessa<sup>1</sup>; Hernandez, Felix<sup>2</sup>.

<sup>1</sup> University of Michigan; <sup>2</sup> University of Sao Paulo; <sup>3</sup> Universidade Federal de Uberlandia; <sup>4</sup> Institute of Semiconductor Physics.

PTH60

**Frenkel-Charge-Transfer Exciton Intermixing Theory for Crystalline Transition Metal Phthalocyanines**

Bondarev, Igor; Popescu, Adrian.

North Carolina Central University.



PTH61

**Rational design of ion-selective membranes via self-organisation of 3,4,5-tris(alkyloxy)benzenesulfonic acid derivatives**

Stupnikov, Alexei<sup>1</sup>; Malakhova, Yulia<sup>2</sup>; Bakirov, Artem<sup>1</sup>; Shcherbina, Maxim<sup>3</sup>; Chvalun, Sergej<sup>1</sup>.

<sup>1</sup> NRC "Kurchatov Institute"; <sup>2</sup> MIREA; <sup>3</sup> ISPM RAS.

PTH62

**Frequency response of a microcantilever immersed in fluid**

Camargo, Luz Helena<sup>1</sup>; Quiñonez, Manuel<sup>2</sup>; Aya Baquero, Hugo<sup>2</sup>.

<sup>1</sup> Universidad Distrital Francisco José Caldas; <sup>2</sup> Universidad Distrital Francisco José de Caldas.

PTH63

**Electric polarizability of n-type InAs/GaAs asymmetric quantum ring**

Gutiérrez, Willian; Mikhailov, Iliia; Gelvez, Rafael.

Universidad Industrial de Santander.

PTH64

**Effects of N implantation on defect formation in ZnO nanowires**

Stehr, Jan Eric<sup>1</sup>; Chen, Weimin<sup>1</sup>; Shen, Shaohua<sup>2</sup>; Buyanova, Irina<sup>1</sup>.

<sup>1</sup> Linköping University; <sup>2</sup> Xi'an Jiaotong University.

PTH65

**Coherent phonon lasing in thermal quantum nanomachine**

Karwat, Paweł<sup>1</sup>; Reiter, D. E.<sup>2</sup>; Kuhn, Tilmann<sup>2</sup>; Hess, Ortwin<sup>3</sup>.

<sup>1</sup> Wrocław University of Science and Technology; <sup>2</sup> Wilhelms-Universität Münster; <sup>3</sup> Imperial College London.

PTH66

**Interface-engineered forming-free Dual Ion Beam Sputtered ZnO based memristive device**

Kumar, Amitesh; Das, Mangal; Bhardwaj, Ritesh; Garg, Vivek; Khan, Md Arif; Kranti, Dr. Abhinav; Mukherjee, Dr. Shaibal.

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