# Tentative Scientific Program

| Day 1<br>November 26, 2018 | |
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| **08:00-08:45** | **Registrations** |
| **08:45-09:00** | **Opening Ceremony** |
| **Keynote Forum** | |
| **9:00-09:45** | Title: Optical fourier holography with thin films of bacteriorhodopsin for cancer diagnostics<br>**D V G L N Rao,** University of Massachusetts, USA |
| **09:45-10:30** | **Title:** Nature has a powerful pick-up tool, supported by a simple universal mechanism, the Stark-effect Induced Gailitis resonance<br>**Chi Yu Hu,** California State University, USA |
| **Coffee Break 10:30-10:50** | |
| **10:50-11:35** | **Title:** Advanced materials for solar photoelectrochemical fuel generation<br>**Oomman K Varghese,** University of Houston, USA |
| **11:35-12:20** | **Title:** Magnetars by condensed matter physics<br>**Qiu-he Peng,** Nanjing University, China |
| **12:20-13:05** | **Title:** Natural field: A link missing in contemporary physics<br>**Debabrata Saha,** Independent Research Scientist, USA |
| **Lunch Break 13:05-14:05** | |
| **Plenary Talk** | |
| **14:05-15:05** | **Title:** Emergent magnetism in titanium nitride<br>**Barbara A Jones,** IBM Research–Almaden, USA |
| **Group Photo 15:05-15:10** | |
| **Condensed Matter Physics \| Solid State Physics \| Theoretical Physics\| Organic Electronics \| Nanomaterials and Nanotechnology** | |
| | **Session Introduction** |
| **Session Chair: Debabrata Saha,** Independent Research Scientist, USA | |
| **Session Co-Chair: Jan Smotlakha,** Joint Institute for Nuclear Research, Russia | |
| **15:10-15:35** | **Title:** High efficiency organic photovoltaics: Current and beyond<br>**Sheng-Yung Chang,** University of California Los Angeles, USA |
| **15:35-16:00** | Title: Chromatic and polychromatic radiation for crystal orientation<br>**Danut Dragoi,** Non-affiliated Senior Scientist, USA |
| **Coffee Break 16:00-16:20** | |
| **16:20-16:45** | **Title:** Estimating vibrational lifetime and boundary conductance<br>**Hari Datt pandey**, University of California, USA |
| **16:45-17:10** | **Title:** Effect of the grain boundaries on the electronic and mechanical structure of graphene<br>**Jan Smotlakha**, Joint Institute for Nuclear Research, Russia |
| **17:10-17:35** | **Title:** Electronic, mechanical and thermoelectric properties of Gd -filled ternary skutterudites<br>**U P Verma,** Jiwaji University, India |
| **17:35-18:00** | **Title:** Structural and magnetic properties of Bi0.80Ba0.20Fe1-xTixO3 ceramics prepared by planetary ball milling technique<br>**Feroz Alam Khan ,** Bangladesh University of Engineering and Technology, Bangladesh |
| **Panel Discussion** | |

| Day 2<br>November 27, 2018 | |
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| **Keynote Forum** | |
| **09:15-10:00** | **Title:** Chemical nanoanalyses of Si grain boundaries towards the fabrication of high- functional Si solar cells<br>**Yutaka Ohno,** Tohoku University, Japan |
| **10:00-10:45** | **Title:** Characterization of ferrite nanoparticles and application for theranostics<br>**Yuko Ichiyanagi,** Yokohama National University, Japan |
| **Coffee Break 10:45-11:00** | |
| **11:00-11:45** | **Title:** Appearance of anisotropic optical absorption, ground state energy, and crystal growth of CdSe quantum dots adsorbed on the (001) and (102) surfaces of anatase-TiO2<br>**Taro Toyoda,** The University of Electro-Communications, Japan |
| **11:45-12:30** | **Title:** CoFeNbZ (Z = Al, Si and In) quaternary Heusler alloys – A first principle study<br>**Rita John,** University of Madras, India |
| **Lunch Break 12:30-13:30, Group Photo** | |
| **13:30-14:15** | **Title:** Influence of Mn substitution on magnetoresistance and magnetic properties of (Fe1-xMnx)75P15C10 alloy ribbons<br>**Feroz Alam Khan,** Bangladesh University of Engineering and Technology, Bangladesh |
| **Plenary Talk** | |
| **14:15-15:15** | **Title:** Implications of the link between the periodic table and the standard model<br>**John Owen Roberts,** Independent Researcher, USA |
| **Condensed Matter Physics \| Materials physics \| Nanomaterials and Nanotechnology** | |
| | **Session Introduction** |
| **Session Chair: Barbara A Jones,** IBM Research–Almaden, USA | |
| **Session Co-Chair: Gennadiy Filippov,** Cuvash State Pedagogical University, Russia | |
| **15:15-15:40** | **Title:** Molecular dynamics investigation of surface potential and electro-kinetic phenomena at the amorphous silica/water interface<br>**Si-Han Chen,** The Ohio State University, USA |
| **15:40-16:05** | **Title:** Moldable soft polymers through topology<br>**Thomas E Kodger,** Wageningen University & Research, The Netherlands |
| **Coffee Break 16:05-16:20** | |
| **16:20-16:45** | **Title:** Electronic properties of Mn-decorated silicene and other 2D materials<br>**Barbara A Jones,** IBM Research–Almaden, USA |
| **16:45-17:10** | **Title:** Density matrix in description of the collision of atomic particle with solid film<br>**Gennadiy Filippov,** Cuvash State Pedagogical University, Russia |
| **17:10-17:35** | **Title:** Seismic Imaging of soils for slope stability in Ngoketunjia divison, north west region Cameroon<br>**Paul Leifeh Njuabeh,** The University Of Bamenda, Cameroon |
| **Poster Presentation** | |
| **17:35-18:00** | **Title:** Majority carrier modulation using contact area ratio between graphene and liquids for harvesting blue energy<br>**Ruey-Jen Yang,** National Cheng Kung University, Taiwan |
| **Panel Discussion** | |

| Day 3<br>November 28, 2018 | |
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| **Keynote Forum** | |
| **9:00-09:45** | **Title:** On the road to room-temperature superconductivity?<br>**Ivan Božović,** Brookhaven National Laboratory, USA |
| **9:45-10:30** | **Title:** Passage of accele4rated high charged ions through a system of parallel thin films<br>**Gennadiy Filippov,** Cuvash State Pedagogical University, Russia |
| **Coffee Break 10:30-10:50** | |
| **10:50-11:35** | **Title:** Amorphous magnetic films for spintronics<br>**Joseph Poon,** University of Virginia, USA |
| **Condensed Matter Physics \| Superconductivity and Superfluidity \| Solid State Physics \| Materials Physics** | |
| | **Session Introduction** |
| **Session Chair: I Chávez,** Universidad Nacional Autónoma de México, México | |
| **Session Co-Chair: Moussab Harb,** King Abdullah University of Science and Technology, Saudi Arabia | |
| **11:35-12:00** | **Title:** Cooper pairs in superconductivity in a generalized BEC theory<br>**I Chávez,** Universidad Nacional Autónoma de México, México |
| **12:00-12:25** | **Title:** Toward rational design of new photocatalytic materials for solar fuel generation using density functional theory<br>**Moussab Harb,** King Abdullah University of Science and Technology, Saudi Arabia |
| **Lunch Break 12:25-13:25** | |
| **13:25-13:50** | **Title:** Fabrication and characterization of copper doped cadmium sulphide thin film solar cell<br>**Sabur Abiodun Ayinde,** The Federal Polytechnic, Nigeria |
| **13:50-14:15** | **Title:** Determination Of mechanical, structural and thermodynamic properties of half-heusler compound ( ZrPdPb) in solid state physics<br>**Ogundola Sunday,** Federal College of Education, Nigeria |
| **14:15-14:40** | **Title:** High temperature solar cells<br>**Dieter M Gruen,** Dimerond Technologies, LLC, USA |
| **Panel Discussion** | |
| **Coffee Break 14:40-15:00** | |
| | **Awards and Closing Ceremony** |