

Student Lecture Programme

Friday 12th August

Session 1 (15:00 - 16:30)

	Planetary Astrophysics (B1)	Philosophy of Science (B2)
15:00	Miss Andreea Munteanu : Massive Stellar Evolution and Neutrino Physics	Mr. Daniel Czege : What is understanding in science?
15:18	Mr. Leonardo Espinoza Zepeda : Journey to Mars	Mr. Adrian Solymos : Reference frame-free spacetime model
15:36	Mr. Erik Johnson : Reducing effect of RV scatter around active M Dwarfs	Ms. Sabina Dafi : A quick course on physics teaching
15:54	Mr. Kunal Deoskar : Active Galactic Nuclei - Are they responsible for the IceCube neutrino detections?	Dr. David Jacome : Outreach and Physics Education in the 2020
16:12	Miss Gvantsa Ghutishvili : Study of Instabilities in the Great Red Spot of Jupiter	Miss Ildik Stark : A new way to determine causality
16:30	Coffee break	

Saturday 13th August

Session 2 (9:30 - 11:00)

	Material Physics 1 (B1)	Astrophysics and Cosmology 1 (B2)
09:30	Mr. Bogdan Butoi : GLAD technique in plasma polymerisation - controlling morphological growth of polymers	Mr. Alexandru Balaceanu : The Development of Cosmic-Ray Detectors in Bucharest
09:48	Mr. Pavao Andricevic : A new old compound is the star in photovoltaics	Mr. Jan Kwapisz : Mass in de Sitter space
10:06	Mr. Lamborghini Sotelo : A little bit of photon pair generation in optical fibers	Ms. Stina Scheer : Optomechanics of photonic crystal membranes
10:24	Mr. Jannis Dickmann : Diffusion of Radon in Tissue	Mr. Jnos Taktsy : Testing globular cluster models with future detections of gravitational waves from eccentric binary black holes
10:42	Mr. Fraser Pike : Combining Multiple Mid-Infrared Laser Diodes into a "Superbeam"	Mr. Alexandru Gherghel-Lascu : The KASCADE-Grande and Pierre Auger Cosmic Ray Experiments
11:00	Coffee break	

Session 3 (14:30 - 16:00)

	Material Physics 2 (B1)	Data Analysis, Simulation and Imaging 1 (B2)
14:30	Miss Danielle Harper: What Makes a Flute a Flute? A Mathematical Analysis of Timbre	Mr. Ulrich Haselmann: FEBID
14:48	Miss Joanna Symonowicz: Light trapping in the Organic Solar Cells	Mr. Diego Benusiglio: Physics in Neuroscience - measuring and modelling of neural circuits.
15:06	Mr. Krishna Seegoolam: Engineering dielectric tunability at perovskite interfaces	Mr. Kristf Rozgonyi: Wide-field analysis of VLBI survey data
15:24	Ms. Ganna Shchygol: Modelling reactions with ReaxFF in MOFs with defects	Miss Sofia Luisa Soares Ferreira Nunes Teixeira: Numerical simulations of flexible thermoelectrics
15:42	Mr. Lukas Deuchler: DFT study of the diffusion of S adsorbates on a Br pre-covered Cu(100)-surface	Mr. Simo Tuomisto: Simulating a sun with your computer
16:00	Coffee break	

Session 4 (16:30 - 17:30)

	Nuclear Physics (B1)	Geophysics (B2)
16:30	Miss Lilla Van: Characterisation of density fluctuations during the inter-ELM periods in the MAST spherical tokamak	Mr. Kamil Ciesielski: Novel rock sampling technique for use on Mars
16:48	Mr. Zvonimir Domazet: Introduction to Nondestructive Testing in Nuclear Power Applications	Ms. Mariam Abuladze: Influence of one specific turbulence on the stable structure of tornadoes
17:06	Mr. Thomas Potocar: Nuclear reactor	Miss Caracas Ioana-Alexandra: Geo-neutrinos as messengers of the Earths interior and as radioactive background in new generation of neutrino oscillations experiments
17:24	Transport	

Sunday 14th August

Session 5 (9:30 - 11:00)

	Quantum Physics 1 (B1)	Electromagnetism (B2)
09:30	Mr. Miller Lukas: Categories in physics	Mr. Timo Eckstein: Accelerators on a Chip
09:48	Mr. Matthias Dahlmans: Particle creation in expanding universes	Mr. Vittorio Erba: Jack Polynomials and Quantum Hall Effects
10:06	Mr. Gerhard Dorn: Quantum dynamics	Mr. Giorgi Bakhtadze: Motion of charged particles in strong magnetic field of pulsar
10:24	Mr. Michal Dragowski: Quantum Spin Correlations	Miss Ida Friis: The Molecular Biocompass
10:42	Dr. Ross Donaldson: Fighting quantum with quantum.	Mr. Dewan Woods: Radio Frequency (RF) source for Optically Detected Magnetic Resonance
11:00	Coffee break	

Session 6 (11:30 - 13:00)

	Medical Physics (B1)	Material Physics 3 (B2)
11:30	Mr. Andrii Repula: Measuring the effect of local electric field in biomimetic self-assembled membranes	Mr. Anton Saressalo: Ferroelectric properties of BFBT thin films
11:48	Mr. Alexandru Nistorescu: Characterisation of Striated Muscular Tissue- Device development and testing method	Mr. James Kneller: Optically Induced Dielectric Changes in Organic Semiconductors and their Non-Adherence to Classical Plasma Theory
12:06	Mr. Luka Luketin: Neuromagnetic studies of the earliest effects of the spatial visual attention	Mr. Toni Markovi: Topological insulators - Synthesis and transport measurements
12:24	Mr. Lari Koponen: Transcranial magnetic stimulation (TMS) for in vivo brain research	Mr. Alexander Schiffmann: n-MOSFET Ageing Measurements and Modeling
12:42	Ms. Eva Hrabri: The role of cross-linking proteins and microtubule pivoting in formation of parallel bundles	Mr. Markus Karppinen : From London to Msida - A Decade of ICPS
13:00	Lunch	

Monday 15th August

Session 7 (9:30 - 11:00)

	Data Analysis, Simulation and Imaging 2 (B1)	Astrophysics and Cosmology 2 (B2)
09:30	Mr. Piotr Kucharski: Quantisation from the perspective of knot invariants	Miss Karen Macas: Sky's Law - light pollution
09:48	Mr. Joonas Havukainen: Neural networks and High Energy Physics	Mr. Baptiste Ravina: Cosmological axion - a Dark Matter candidate
10:06	Miss Wiebke Hahn: High resolution imaging of scanning tunnelling luminescence from InGaN/GaN QWs	Mr. Maximilian Dill: Gravity - It can be derived from matter!
10:24	Gabriella Koncz: Study of exotic nuclei with radioactive ion beams	Mrs. Jacqueline Catalano: A trigger ASIC for the Cherenkov Telescope Array
10:42	Mr. Tamas Almos Vami: Reconstruction of the CMS Pixel Pilot Blade	Mr. Florian Wolz: Gravitational dynamics beyond the standard model - a case study
11:00	Coffee break	

Session 8 (14:30 - 16:00)

	Quantum Physics 2 (B1)	Atomic and Particle Physics 1 (B2)
14:30	Mr. Nicola Mosco: A path-sum approach for Weyl and Dirac Quantum Walks	Ms. Angela Ludvigsen: Laser Power Effects on the Size of an Optically Trapped Aerosol Droplet Determined Via Whispering Gallery Modes
14:48	Mr. Dniel Nmeth: CDT - A Nonperturbative Quantum Gravity Theory	Mr. Petar Marevic: When atomic nucleus goes pear-shaped
15:06	Ms. Kinga Sra Bod: Quantum game theory	Mr. ron Kripk: Neutron detection in NeuLAND
15:24	Miss Oana Daciana Botta and Miss Loredana Angelica Mares: Electric and magnetic characterisation of the fluorescence properties of a quantum dot-liquid crystal composite	Mr. Florian Lippert: Nanoparticles - Production and characterisation
15:42	Miss Valeriya Mykhaylova: Phase diagrams in QCD	Miss Joanna Peszka: Exotic nuclei decay products detection by using Optical Time Projection Chamber
16:00	Coffee break	

Tuesday 16th August

Session 9 (9:30 - 11:00)

	Material Physics 4 (B1)	Particle Physics 2 (B2)
09:30	Mr. Adrian Salo: Creation of Superoxide at the Qo active site of the BC1 complex	Mr. Jack Woolley: Dynamics of Molecular Ring Currents
09:48	Ms. Bettina Leibundgut: Oxidic Thin-Film Quasicrystals	Mr. Dominik Gerstung: Large- N_c Constraints on Nuclear Forces
10:06	Mr. Viktor Knye: Optical conductivity of graphene	Mr. Louis Varriano: Neutron-mirror neutron oscillations in a residual gas environment
10:24	Ms. Maria Gieysztor: PEDOT:PSS as a transparent electrode in perovskite solar cells	Ms. Aleksandra Snoch: Prototype of Time-of-Flight detector for NA61/SHINE experiment
11:00	Coffee break	