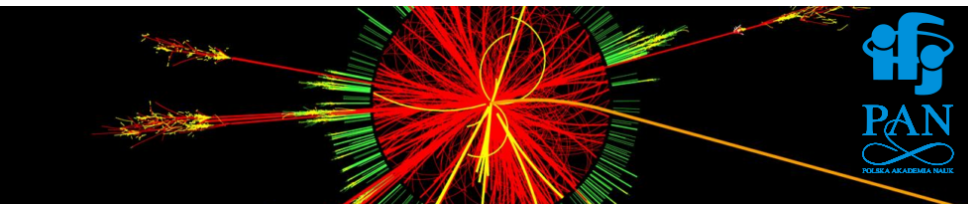


Particle Physics Summer Student Programme

Students Presentations

Maciej Trzebiński



Institute of Nuclear Physics Polish Academy of Sciences

27th July 2018

CLASSICAL PHYSICS

ISAAC NEWTON

LAWS OF MOTION

CALCULUS

CLASSICAL MECHANICS

FLUID MECHANICS

CHAOS THEORY

LAW OF UNIVERSAL GRAVITATION

ORBITS

GRAVITY

OPTICS

REFLECTION REFRACTION DIFFRACTION

MICROSCOPE

TELESCOPE

ELECTROMAGNETISM

ELECTRIC FIELDS

MAGNETIC FIELDS

ELECTRICITY

LIGHT

THERMODYNAMICS

ENERGY

HEAT TEMPERATURE

ENTROPY

RELATIVITY

ALBERT EINSTEIN

CONSTANT SPEED OF LIGHT

SPECIAL THEORY OF RELATIVITY

TIME

SPACE

WAVES

TRANSVERSE

LONGITUDINAL

JAMES CLERK MAXWELL

QUANTUM FIELD THEORY

QUANTUM ELECTRODYNAMICS

ATOMIC THEORY

CONDENSED MATTER PHYSICS

QUANTUM INFORMATION

COMPUTERS

LASERS

PHILOSOPHY

PHILOSOPHY OF SCIENCE

FREE WILL

HOW COME?

NATURE OF REALITY

JUST...WHY?

GENERAL THEORY OF RELATIVITY

SPACETIME

E=MC²

THE STANDARD MODEL

NUCLEAR PHYSICS

FUSION

FISSON

QUANTUM PHYSICS

PARTICLE PHYSICS

THE CHASM OF IGNORANCE

THE FUTURE

QUANTUM GRAVITY

STRING THEORY

LOOP QUANTUM GRAVITY

DARK ENERGY

DARK MATTER

AND MANY MORE...

- 09:00 – 09:15** Katarzyna Posmyk, Mikołaj Michaluk, *Measurement of the direct CP violation in $B^+ / B^- \rightarrow D_0 D_s$ using software from Belle II experiment*
- 09:15 – 09:30** Sara Ruiz Daza, Kamil Grzebień, *Determination of the intrinsic resolution of Silicon Vertex detector of Belle II experiment*
- 09:30 – 09:45** Sergiusz Warga, Tymoteusz Piga, *Readout and data processing of the SOI pixel detector*
- 09:45 – 10:00** Paweł Rokicki, Tomasz Fał, *Reconstruction of particle tracks using Deep Neural Networks*
- 10:00 – 10:15** Zuzanna Szester, Michał Zmyślony, *Search for New Physics in the ATLAS detector at the LHC*
- 10:15 – 10:30** Mateusz Zych, Povilas Račkauskas, *QCD scattering with and without transfer of colour charges*
- 10:30 – 11:00** **coffee break**
- 11:00 – 11:15** Natalia Donocik, Magdalena Syrek, *Kinematic properties of scattered protons reconstructed in ATLAS forward detectors*
- 11:15 – 11:30** Julia Pacyna, Michał Marciniak, *Charged particle production in Xe+Xe collisions*
- 11:30 – 11:45** Paweł Drabczyk, Patrycja Potępa, *Detection of Cosmic-Ray Ensembles*
- 11:45 – 12:00** Małgorzata Madej, Maciej Jagusztyń, *Development of the algorithm for a study of radiative charm decays at the LHCb experiment*
- 12:00 – 12:15** Michał Suchorowski, Maciej Giza, *Data/simulation Corrections for the $B \rightarrow DX$ Decays*
- 12:15 – 12:30** Izabela Juszcak, Piotr Pigoń, *Study of the femtosopic effects in LHCb experiment*
- 12:30 – 13:30** **lunch break**
- 13:30 – 13:45** Łukasz Rudyk, Michał Kluz, *D -muon production with ALICE and ATLAS experiments in ultra-peripheral Xe-Xe collisions*
- 13:45 – 14:00** Filip Jurczak, Ewa Glimos, *Time calibration of EMCal ALICE detector*
- 14:00 – 14:15** Joanna Szulc, *Studies of photon-jet correlation in the ALICE experiment at the LHC*
- 14:15 – 14:30** Sebastian Pinocy, Petr Baroň, *Quark/gluon jets*
- 14:30 – 14:40** **voting**
- 14:40 – 15:00** **coffee break**
- 15:00 – 15:15** Awards ceremony

Tutors:

- Scores and remarks will be considered if given for more than 50% of presentations.
- Jury award(s) will be granted based on scores and internal discussion.

Students:

- You should listen carefully to all speakers.
- There are 16 presentations – it is wise to make notes!
- After the last presentation you will get 3 voting cards.
- On each card write a number corresponding to the presentation that you would like to vote for.
- There must be only one number per card!
- A single person must not vote on the same presentation multiple times!
- You should not vote on your own presentation.
- Please not bend the votes.
- The votes will be counted and the first three places will be awarded.

Presentations

The floor is yours!

- 1 Katarzyna Posmyk, Mikołaj Michaluk, *Measurement of the direct CP violation in $B^+/B^- \rightarrow D_0 D_s$ using software from Belle II experiment*
- 2 Sara Ruiz Daza, Kamil Grzebień, *Determination of the intrinsic resolution of Silicon Vertex detector of Belle II experiment*
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- 4 Paweł Rokicki, Tomasz Fąs, *Reconstruction of particle tracks using Deep Neural Networks*
- 5 Zuzanna Szester, Michał Zmyślony, *Search for New Physics in the ATLAS detector at the LHC*
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- 13 Łukasz Rudyk, Michał Kluz, *Di-muon production with ALICE and ATLAS experiments in ultra-peripheral Xe-Xe collisions*
- 14 Filip Jurczak, Ewa Glimos, *Time calibration of EMCal ALICE detector*
- 15 Joanna Szulc, *Studies of photon-jet correlation in the ALICE experiment at the LHC*
- 16 Sebastian Pinocy, Petr Baroň, *Quark/gluon jets*

Jury awards:

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3rd place: **Zuzanna Szester, Michał Zmyślony**, *Search for New Physics in the ATLAS detector at the LHC*

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PPSS'18 Student presentations

