MACIEJ LEWICKI

born	2 February 1992
address	Max Born place 9, 50-204 Wrocław, PL
phone	+48713759388
e-mail	maciej.lewicki@uwr.edu.pl
www	cern.ch/malewick

EDUCATION

2010	Graduated Grammar School № 3 in Wrocław.
2010 – 2013	**BSc**: Computational Physics at University of Wrocław.
2013 – 2015	**MSc**: Computational Physics at University of Wrocław.
2015 – (2019)	**PhD**: Division of Elementary Particle Theory, IFT@UWr.

EXPERIENCE

2012 - 2013	Computational cluster development on Raspberry Pi units [student project].
2013	Three-month internship at Rhino Sp. z o. o. [neural networks, time series prediction].
2014	Two-month summer student at Helmholtz Zentrum in Dresden.
2014-2016	Short-term internships at CERN, Switzerland [various projects, total of 6 months].
since 2017	Assistant Lecturer [including proprietary courses].
since 2017	Co-funder of POPULI.PL [opinion polls platform].
2018 – (2020)	National Science Centre grant "Preludium" – project leader.

ACHIEVEMENTS

Awards for presentations	- Ogólnopolska Sesja Kół Naukowych Fizyków (Kraków, 2013). - Winter Kindergarten of Theoretical Physics (Lądek-Zdrój, 2015). - Open Readings (Vilnus, 2017).
FizBit Contest	- II prize (2014). - I prize (2015). [Physics Popularization Software]
Students' Nobel	- Best Student in Sciences (regional, 2014). - III Prize in Sciences and Technical Studies (national, 2015). [All-around best student contest]
Scholarships	- Scholarship for Ordered Specialties (2010-2013). - DAAD tour stipend, (2012). - Scholarship from the Minister of Higher Education for Outstanding Scientific Achievements (2014). - Rector's Scholarship for the best doctorate students (2016-2018).

OTHER

- Cambridge Certificate in Advanced English (2010)
- Member of the Scientific Societies Council (2012-2014).
- Students' Government Representative (graduate: 2012-2014) and (doctorate: since 2016).
- University Swimming Team Member (2010-2014).
- Junior Lifeguard (since 2008).
- Organizer of Student's Mountain Camp in Biały Dunajec (2011-2013) [over 600 participants].
- Leader of Scouting Troop (2007-2012).

HOBBIES

Data visualization, traveling, hiking, ornithology, swimming, basketball.

Research Projects

1. NA61/SHINE Collaboration `[cern.ch/shine]`
   National Science Centre Grants "Harmonia": (2012/04/M/ST2/00816, 2015/18/M/ST2/00125).
   Grant for Young Researchers 2017.

   - Calibration of time synchronization of Time Projection Chambers..

   - Analysis of data on collisions of Ar+Sc ions with "h⁻" method. Identification of negatively charged pions (π^-). Calculation of spectra and multiplicities.

   - Analysis of data on collisions of p+p ions with "dE/dx" method. Identification of hadrons: π^-, π^+, K^-, K^+, p, $\bar{p}$ and d. Calculation of spectra and multiplicities at the beam energy of $150A$ GeV/c.

   - Preliminary analysis of data on collisions of p+p ions with "dE/dx" method. Identification of kaons: K^-, K^+. Calculation of spectra and multiplicities at three beam energies.

   - Development of Time of Flight reconstruction software.

2. National Science Centre Grant "Polonez" (DEC-2015/19/P/ST2/03333)
   "Dissipative properties of strongly interacting matter formed in heavy-ion collisions". `[ift.uni.wroc.pl/grants/huovinen]`

   - Calculation of phase space available in the decays of heavy resonances. Development of computational methods and analysis software.

3. Dosematic. `[cern.ch/malewick/dosematic]`

   - Development of statistical analysis software for dosimetric data. Complex statistical methods are implemented into simple and easy graphical user interface.

Internships and Short-term projects

1. Department of Nanostructures Physics. `[02.-06.2011]`
   Measurements of Oxygen on Molybdenum (211) and Wolfram (211) surface with Scanning Tunneling Microscope.

2. Rhino sp. z o. o. (now: Hicron group). `[21.04.-05.08.2013]`
   Time series predictions with artificial neural networks.

3. Helmholtz-Zentrum Dresden-Rossendorf – Summer Student Program.
   `[14.07-17.09.2014]`
   Development of positron emitter simulation – nuclear activation of iron ^{58}Fe with low energy cyclotron beam.

4. Internships and workshops at CERN (Geneva), NA61/SHINE Collaboration:

   - `[28.10.-18.12.2014]` – Internship – the analysis of Time Projection Chambers time delays with pulser tool.

   - `[04.03.-30.03.2015]` – Monte Carlo simulation development.

   - `[01.09.-31.10.2015]` – Internship within the programme of "Akademia Rozwoju kluczem wzmocnienia kadr polskiej gospodarki".

   - `[23.11.-04.12.2015]` – Expert workshop "ArSc Analysis".

   - `[21.11.-25.12.2016]` – Expert workshop "Kaon identification in NA61/SHINE".

5. Research Collaboration at Goethe University in Frankfurt a/M with prof. Marek Gaździcki. `[13.03.-20.03-2016 and 18.07.-21.07-2017]`.

Conference Participation (talks only)

1. International Conference of Physics Students, Edinburgh, UK - [15–21.08.2013]
   "Parallel Computing in Physics"
2. XII Ogólnopolska Sesja Kół Naukowych Fizyków, Kraków, PL – [7–10.11.2013]
   "Supercomputer - do it yourself!"; audience prize for the best talk.
3. Winter Kindergarten of Theoretical Physics, Karpacz, PL – [02–09.03.2014]
   1-hour lecture: "Artificial Neural Networks".
4. Winter Kindergarten of Theoretical Physics, Lądek-Zdrój, PL – [08–14.02.2015]
   1-hour lecture: "Time projection chambers in NA61/SHINE". Prize for the best lecture.
5. NA61/SHINE Collaboration Meeting, Paris, FR – [25.05.-29.05.2015]
   "TPC pad-by-pad calibration using krypton decay and grid pulser".
6. NA61/SHINE Collaboration Meeting, CERN Prevessin, FR –
   [21.09-25.09.2015] "h- spectra in Ar+Sc interactions".
7. NA61/SHINE Collaboration Meeting, Baku, AZ – [01.05.-08.05.2016]
   "Pion spectra in Ar+Sc interactions"
8. Critical Point and Onset of Deconfinement, Wrocław, PL – [30.05.-04.06.2016]
   "Pion spectra in Ar+Sc interactions at SPS energies"
9. Polish Workshop on Heavy Ion Collisions, Kielce, PL – [04.11.-06.11.2016]
   "Pion spectra and mean multiplicities in Ar+Sc collisions at SPS energies"
10. Winter School of Theoretical Physics, Karpacz, PL – [26.02–04.03.2017]
    "News from NA61/SHINE Strong Interactions Programme"
11. Open Reading, Vilnus, LT - [14.03.-17.03.2017]
    "Strong Interactions Investigation Methods at NA61/SHINE". Prize for the best presentation.
12. NA61/SHINE Collaboration Meeting, Moscow, RU – [7.05.-12.05.2017]
    "TOF Module in SHINE" and "First Results of dE/dx Analysis of Ar+Sc Data"
13. Critical Point and Onset of Deconfinement, Stony Brook, USA – [07-11.08.2017]
    "Identified hadron production in Ar+Sc collisions at SPS energies".
14. Zimányi - COST Action Winter School, Budapest, HU – [04.12.-08.12.2017]
    "New results on strangeness production from the NA61/SHINE experiment"
15. Polish Workshop on Heavy Ion Collisions, Wrocław, PL – [05.01.-07.01.2018]
    "Pion spectra and mean multiplicities in Ar+Sc collisions at SPS energies"
16. NA61/SHINE Collaboration Meeting, Monbachtal, DE – [19.02.-22.02.2018]
    "TOF Module in SHINE" and "News on dE/dx analysis of Ar+Sc data"
17. Exited QCD, Kopaonik, RS – [11.03.-15.03.2018]
    "On strangeness in NA61/SHINE"

Conference Organization

- 1st Wrocław Conference of Students of Natural Sciences and Technology Puzzel 2012 [28–29.04.2012]
- Winter Kindergarten of Theoretical Physics 2013 [10–16.02.2013]
- Winter Kindergarten of Theoretical Physics 2014 [02–09.03.2014]
- Critical Point and Onset of Deconfinement 2016 [30.05.-04.06.2016]
- Falling Walls Lab 2016 [10.10.2016]
- Winter School of Theoretical Physics 2017 [26.02–04.03.2017]
- Falling Walls Lab 2017 [02.07.2017]
- Polish Workshop on Heavy Ion Collisions, Wrocław, PL [05.01.-07.01.2018];

Teaching Experience

- Programming and electronics for the Kids' University (*Uniwersytet Dzieci*) [2014].
- Laboratory "Introduction to python" [2016–2018]
- Laboratory "Project in scripting language" [2016–2018]
- Laboratory "Numerical methods" [2017–2018]
- Laboratory and lecture: "Introduction to ROOT" [2017] – proprietary course.