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## **ACADEMIC AND PROFESSIONAL POSITIONS**

- 2017-present Head of Particle Theory Department, Associate professor at the Institute of Nuclear Physics Polish Academy of Sciences, Kraków, Poland.
- 2016-2017 Associate professor at the Institute of Nuclear Physics Polish Academy of Sciences, Kraków, Poland.
- 2011-2016 Adjunct at Institute for Nuclear Physics Polish Academy of Sciences, Kraków, Poland.
- 2010-2011 Post-doctoral researcher. University of Antwerp, Antwerp, Belgium.
- 2007-2010 Post-doctoral researcher. Deutsches Elektronen-Synchrotron (DESY), Hamburg, Germany.
- 2004 Teaching assistant. University of Hamburg, Hamburg, Germany.
- 2002-2003 Research assistant at Institute of Nuclear Physics Polish Academy of Sciences, Kraków, Poland.

## **EDUCATION AND PROFESSIONAL DEVELOPMENT**

- 2015 Habilitation at Institute for Nuclear Physics Polish Academy of Sciences, Kraków, Poland.
- 2003-2006 PhD University of Hamburg, Germany.
- 1997-2002 Msc. Jagiellonian University, Kraków, Poland.

## **BIBLIOMETRIC DATA**

- Total number of citations: 4117 (inSPIRE)
- Hirsh index: 35 (inSPIRE)

## **HONORS AND AWARDS**

- 2012-2015 Stipend of ministry of science and education for excellent young polish scientist.
- 2003-2006 Granted a PhD scholarship at University of Hamburg.
- 2002 Granted Scholarship at Summer Academy on Astro-Particle Physics, Krzyżowa, Poland.

- 2000 Granted TEMPUS Scholarship at Friedrich Schiller Universitat, Jena, Germany.
- 1998-2000 Granted Jagiellonian University student scholarship for very good academic records.

## Visits

1. Selected for 4 month stay at CERN as a Scientific Associate (2018)
2. Visitor at CERN Theory Division, Geneva, Switzerland (2016.2.1-13).
3. Visitor at particle theory department of Pennsylvania State University, State College, USA (January, 2015).
4. Short term visitor at CERN Theory Division, Geneva, Switzerland (2014.5.12-17).
5. Institut de Physique Theorique (IPhT) Saclay, France (2012.12.10-14).
6. Short term visitor at CERN Theory Division, Geneva, Switzerland (2011.7.30-3).
7. Laboratoire de Physique Theorique et Hautes Energies, Sorbona University, Paris, France, (2011.7.17-22).
8. Oxford University Particle Theory Department, Oxford, England, (2007.10.8-10).

## Conferences, workshops and invited talks

1. *Estimating saturation effects in production of di-jets*. Invited Talk EDS Blois 2017, Prague, Czchia, 2017.
2. *Single Inclusive jet production at Very Forward Rapidities*. Invited talk Deep Inelastic Scattering 2017, Birmingham, UK (2017.04)
3. *Theory and phenomenology of forward jets*. Invited talk. Forward and Small-x QCD annual workshop CERN, Geneva, Switzerland
4. *4-jet production: DPS and SPS contributions*. ICHEP 2016, Chicago, USA (2016.08)
5. *Production of dijets in forward direction as a probe of dense system of partons* ICHEP 2016, Chicago, USA (2016.08)
6. *4-jet production: DPS and SPS contributions*. Initial Stages 2016, Lisbon, Portugal (2016.05)
7. *High Energy Factorization - recent phenomenology results*. Invited talk. "Workshop on resummation Evolution Factorization", 2015, Hamburg, Germany (2015.11)
8. *Perspectives for finding signatures of gluon saturation in production of forward-forward dijets*. Invited talk. Workshop "Recontres du Vietnam", 2015, Qui Nhon, Vietnam (2015.07)
9. *Perspectives for finding signatures of gluon saturation in production of forward-forward dijets*. Invited talk. Workshop on "Fluctuations and correlations in heavy ion collisions", 2015, Seattle, USA (2015.07)
10. *Gluon density and gluon saturation*. Lattice 2015, Kobe, Japan, (2015.07)
11. *High energy factorization and forward jets*.  
Workshop on Transversal Momentum Parton Densities, Antwerpen, Belgium (2014.12)
12. *Gluon density at large values of coupling constant*.  
Strong and Electroweak Matter, Lausanne, Switzerland (2014.07)
13. *Low x dynamics and coherence effects in production of forward central jets*.  
Deep Inelastic Scattering 2014, Kyoto, Japan (2014.06)
14. *Jets at high energies*.  
Various Faces of QCD 2014, Poland, Kielce (2014.05)
15. *Kinematical constraint revisited and nonlinear evolution at large values of coupling constant*.  
DIS 2014, Warszawa, Poland (2014.04)

16. *Jets at high energies.*  
Various Faces of QCD 2014, Poland, Kielce (2014.05)
17. *Kinematical constraint revisited and nonlinear evolution at large values of coupling constant.*  
DIS 2014, Warszawa, Poland (2014.04)
18. *Azimuthal decorrelations in forward-central dijet production.*  
DIS 2014, Warszawa, Poland (2014.04)
19. *Recent results in low  $x$ .*  
Mini workshop on low  $x$ , Hamburg, Germany (2014.02)
20. *Gluon saturation.*  
Boston workshop on jets, Boston, USA (2014.01)
21. *Saturation, coherence and exclusive final states.*  
Polish workshop on heavy ions, Poland, Kielce (2013.12)
22. *Selected recent results in high energy factorization.*  
h3QCD, Italy, Trento, (2013.06)
23. *Gluon density coherence and saturation.*  
Low  $x$  2013, Israel, Rehovot (2013.05)
24. *Saturation, coherence and exclusive final states.*  
p-Pb workshop, Italy, Trento, (2013.05)
25. *Saturation, coherence and exclusive final states.*  
XXI Deep Inelastic Scattering 2013, France, Marseille, (2013.04)
26. *High energy factorization and prospects for phenomenology*  
ATLAS Forward Physics, CERN, Geneva, Switzerland, (2013.02)
27. *Gluon saturation in dijet production in  $p$ -Pb collisions at Large Hadron Collider.*  
IX-th Polish Workshop on Relativistic Heavy-Ion Collisions, Kraków, Poland, (2012.11).
28. *Gluon saturation in dijet production in  $p$ -Pb collisions at Large Hadron Collider.*  
2nd Workshop on QCD and Diffraction at the LHC , Kraków, Poland, (2012.11).
29. *Aspects of saturation and final states.*  
Xth Quark Confinement and the Hadron Spectrum, Munich, Germany, (2012.10).
30. *Saturation: from production of entropy to coherent emission of gluons.*  
International School of Nuclear Physics 34th Course Probing the Extremes of Matter with Heavy Ions, (2012.09) Erice-Sicily: 16 - 24 September 2012
31. *Nonlinear equation for coherent gluon emissions.*  
Light cone 2012, Kraków, Poland, (2012.06).
32. *Aspects of saturation and final states.*  
Low  $x$  2012, Paphos, Cyprus, 2012.06.
33. *Nonlinear equation for coherent gluon emission.*  
XX International Workshop on Deep Inelastic Scattering and Related Subjects, Germany, Bonn, (2012.03).
34. *Forward physics and high energy factorization*  
Meeting of CMS Forward Group, Geneva, Switzerland, (2012.01).
35. *Entropy production in high energy hadron hadron scattering.*  
High Energy Physics in the LHC Era 4th International Workshop, Valpariso, Chile, (2012.01).
36. *Entropy production in high energy hadron hadron scattering.*  
Workshop on low  $x$  physics, Kraków 2011, Poland, (2011.10).

37. *Forward physics: theory and phenomenology overview.*  
ISMD 2011, Hiroshima, Japan, (2011.09).
38. *Re-summed form of the BK equation and its extension towards final states.*  
High Energy Physics in the LHC Era 4th International Workshop, Valpariso, Chile, (2012.01).
39. *High Energy Factorization: theoretical basics and phenomenological applications.*  
Epiphany 2011, Kraków, Poland, (2011.01).
40. *Forward jets at the LHC.*  
Diffraction 2010, Firenze, Italy, (2010.09).
41. *From LHC to LHeC and back: the issue of forward jets.*  
18th International Workshop On Deep Inelastic Scattering And Related Subjects (DIS 2010), Firenze, Italy, (2010.04).
42. *Saturation and linear transport equation.*  
18th International Workshop On Deep Inelastic Scattering And Related Subjects (DIS 2010), Firenze, Italy, (2010.04).
43. *Forward jet production at the Large Hadron Collider.*  
45th Rencontres De Moriond: QCD And High Energy Interactions, La Thuile, Italy, (2010.03).
44. *High energy factorization.*  
Workshop on forward physics. CERN, Geneva, Switzerland, (2010.01).
45. *High energy factorization and forward jets at LHC.*  
33th International Conference Of Theoretical Physics: Matter To The Deepest: Recent Developments In Physics Of Fundamental Interactions, Ustroń, Poland, (2009.09).
46. *High energy factorization and forward jets at LHC.*  
2009 Europhysics Conference On High Energy Physics: HEP 2009 (EPS-HEP 2009), Kraków, Poland, (2009.07).
47. *Saturation effects in final states due CCFM with saturation boundary.*  
Cracow Epiphany Conference on Hadronic interactions at the dawn of the LHC, Kraków, Poland, (2009.01).
48. *Saturation effects in final states due CCFM with saturation boundary.*  
Multiparton Interactions at LHC, Perugia, Italy, (2008.09).
49. *Saturation effects in final states due CCFM with saturation boundary.*  
International Symposium on Multiparticle Dynamics, Hamburg, Germany, (2008.09).
50. *Saturation effects in final states due CCFM with saturation boundary.*  
The LHeC: Deep Inelastic Electron-Nucleon Scattering at the LHC, Divonne, France, (2008.09).
51. *Valence quarks and  $k_t$  factorization.*  
International Workshop on Hadron Structure and QCD, Gatchina, Russia, (2008.06).
52. *Saturation effects in ultrahigh energy neutrino nucleon interactions.*  
HERA and the LHC. A workshop on the implications of HERA for LHC physics, Hamburg, Germany, (2007.03).
53. *Valence quarks and  $k_t$  factorization.*  
16th International Workshop on Deep Inelastic Scattering, London, England, (2008.04).
54. *Momentum space analysis of the Triple Pomeron Vertex.*  
Low x meeting, Lisbon, Portugal, (2006.06).
55. *Gluon density from impact parameter dependent Balitsky-Kovchegov equation.*  
4th International Workshop on Deep Inelastic Scattering, Tsukuba, Japan, (2006.04).

56. *Heavy quarks from BK equation.*  
HERA and the LHC. A workshop on the implications of HERA for LHC physics, CERN, Geneva, Switzerland, (2005.04).
57. *Modified Balitsky-Kovchegov equation.*  
Lund small x workshop, Hamburg, Germany (2004.05).

## Colloquia

1. Czynniki modyfikacji jądrowej didżetów produkowanych w obszarze do przodu w Large Hadron Collider  
Talk delivered at Uniwersytet Śląski, Katowice, Poland, (2016.05).
2. Czynniki modyfikacji jądrowej didżetów produkowanych w obszarze do przodu w Large Hadron Collider  
Talk delivered at Warsaw University, Warszawa, Poland, (2016.05).
3. Overview of recent results in high energy factorization  
Talk delivered at Jagiellonian University, Kraków, Poland, (2016.05).
4. *Jets at high energies.*  
Invited talk, delivered at Penn State, State College, USA (2015.01)
5. *Jets and gluon saturation*  
Akademia Górniczo Hutnicza, Kraków, Poland, (2013.03).
6. *Jets and gluon saturation*  
Jagiellonian University, Kraków, Poland, (2013.03).
7. *Jets and gluon saturation*  
University of Lund, Lund, Sweden, (2013.01).
8. *Evolution equations of high energy factorization*  
Warsaw University, Warszawa, Poland, (2013.03).
9. *Evolution equations of high energy factorization*  
Jagiellonian University, Kraków, Poland, (2013.03) .
10. *High Energy Factorization evolution equations and matrix elements*  
Antwerpen Universiteit, Antwerp, Belgium, (2013.02).
11. *High energy factorization evolution equations and matrix elements*  
Vrije Universiteit Brussel, Brussel, Belgium, (2013.02).
12. *Momentum space equations of high energy factorization*  
Service de Physique Theorique, C.E. Saclay, France, (2012.12).
13. *Entropy production in high energy hadron hadron scattering.*  
Jagiellonian University, Poland, (2011.10).
14. *High Energy factorization: theoretical basics and phenomenological applications.*  
Univerzita Karlova, Czech Republic, (2011.01).
15. *High energy factorization: theory and phenomenological applications.*  
Seminar of Division of Theoretical Physics, IFJ PAN, Kraków, Poland, (2010.04).
16. *Nonlinear effects in high energy QCD.*  
Meeting of H1 collaboration. Hamburg, Germany, (2007.02).

## Teaching

- Introduction to QCD, University of Mining and Metallurgy, Kraków, (2015)
- Contribution to a lecture on fitting program at the Monte Carlo School "Physics at the Terascale", Hamburg, Germany, (2008).

- One semester course in Quantum Mechanics, University of Hamburg, Germany, (2005).

### Organization of conferences, workshops, seminars

1. Initial Stages of Hadronic collisions 2017 Kraków, Poland, co-organization.
2. Mini workshop on collective effects in pp, pA, AA, Kraków, Poland, co-organization.
3. PSR 2015, Kraków, Poland, (2015), co-organization.
4. MPI@LHC 2015, Kraków, Poland, (2014), co-organization.
5. Epiphany conference, Kraków, Poland, (2014), co-organization.
6. Convener of QCD@LHC 2013, Hamburg, Germany
7. Convener of MPI@LHC 2013, Antwerp, Belgium
8. Epiphany 2013 conference, Kraków, Poland, (2013), co-organization.
9. Chair of the weekly seminar on QCD at IFJ, (2012), organization.
10. CERN Council Open Symposium on European strategy for Particle Physics, secretary of Strong Interaction Physics section.
11. "XIX Symposium on Multiparticle Dynamics", Antwerp, Belgium, (2012), co-organization.
12. "XVII Symposium on Multiparticle Dynamics", Hamburg, Germany, (2008), co-organization.
13. Monte Carlo School. "Physics at the Tera Scale", Hamburg, Germany, (2008), co-organization.

### Grants and stipends

- Sonata Bis, grant for forming a research group (250000 euro/3.5 years) (ongoing).
- Polish-Belgian grant for scientific exchange (ongoing)
- LIDER/02/35/L-2/10/NCBiR/2011, grant for forming a research group (250000 euro/3 years) (completed).
- Homing Plus/2010-2/6, grant for foreign scientist coming to Poland (80000 euro/2 years) (completed).
- Stipend of ministry of science and education for excellent young polish scientist (2012-2015). **Networking activity**
- Unraveling new physics at the LHC through the precision frontier. COST
- Small-x Physics at the LHC and in new DIS experiments. HORIZON 2020

### Mentoring and supervision

- Postdocs
  - Mirko Serino, Oct 2014 - Sept 2017
  - Michal Deak, Oct 2016 - Sept 2018
  - Oleksandr Gituliar, Jan 2015 - Sept 2016
  - Piotr Kotko, Jan 2012-Sep 2014
  - Magdalena Sławińska, Jan 2012-Dec 2012
  - Dawid Toton, Jan 2012-Sep 2014
- PhD students
  - Marcin Bury, since Sept 2015
- PhD thesis co-supervision
  - Michal Deak, Oct 2006-Nov 2009. Currently postdoc at University of Valencia, (Spain)

- Master's thesis  
 Krzysztof Bożek, Oct 2011-Jul 2013 (at present PhD student at King's Colledge, UK). Co-supervision.  
 Tomasz Salwa, Oct 2011-Sep 2013. Co-supervision.  
 Małgorzata Pikies, Oct 2011-Jul 2013 (at present PhD student at Technical University of Mining and  
 Metalurgy, Kraków)
- Bachelor theses  
 Małgorzata Pikies Sep 2011 Jan 2012  
 Marcin Bury 2011 Sep 2011 Jan 2012  
 Ruben van Boxem, May 2010

#### **Reviewer of articles for**

- European Physics Journal C
- Physics Letters B
- Physical Review D

#### **Reviewer of grants for**

- FWO (Science Foundation of Flanders, Belgium)
- GIF (The German Israeli Foundation for Scientific Research and Development)
- CSF (Czech Science Foundation)

#### **Outreach and media**

- *Strategy for particle physics*, interview for Polish Press Agency, September, 2012. Copy this link into your browser: <http://www.naukawpolsce.pap.pl/aktualnosci/news,391841,strategiczne-spojrzzenie-na-fizyke-czastek.html>
- *W drodze na koniec świata*, interview for local newspaper Orantka in Barcice (nearby Nowy Sacz). Copy this link into your browser: <http://www.barcice.diecezja.tarnow.pl/download>
- *Particle physics for the kindergarten*. Lecture and demonstrations for children from a kindergarten.
- Press note about my paper on Monte Carlo simulation on web page of Polish Science Foundation. Copy this link into your browser: <http://www.fnp.org.pl/en/breakthrough-research-elementary-particle-collisions/>
- Press note about my paper on Monte Carlo simulation on web page of Institute for Nuclear Physics. Copy this link into your browser: <http://popul.ifj.edu.pl/wiadomosci/55/czytaj.html>