

Roland Katz, PhD

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Postdoc at the University of São Paulo (Dec. 2016 – Oct. 2018)

Fields	High energy physics phenomenology, quark-gluon plasma & heavy flavours
Project	Building a state-of-the-art simulation (“DAB-Mod”) to study the open heavy flavour propagation in an event-by-event viscous hydrodynamic QGP. Implementation of coalescence and relativistic Langevin dynamics. Exploration of their azimuthal anisotropies through the cumulant method and new observables.
Collaborators	Prof. A. Suaide, J. Noronha, M. Munhoz (São Paulo U.), Prof. J. Noronha-Hostler (Rutgers U.) and Dr. C. Prado (Central China Normal U.)
Laboratory	Institute of Physics, São Paulo, Brazil

Doctoral thesis (Oct. 2012 – Jan. 2016)

Fields	High energy physics phenomenology, quark-gluon plasma & open quantum systems
Title	<i>A quantum approach to dynamical quarkonia suppression in high energy heavy ion collisions</i>
Supervisors	Prof. P.B. Gossiaux (SUBATECH) and Prof. E. Bratkovskaya (FIAS - Frankfurt)
Laboratory	SUBATECH at Ecole des Mines de Nantes (CNRS), Nantes, France

Publications

- 2017** Event-by-event correlations between soft hadrons and D^0 mesons in 5.02 TeV PbPb collisions at LHC, C. Prado, J. Noronha-Hostler, R.K., A. Suaide, J. Noronha, M. Munhoz - accepted in Phys. Rev. C.
- Event-by-event v_n correlations of soft hadrons and heavy mesons in heavy ion collisions*, C. Prado, J. Noronha-Hostler, R.K., A. Suaide, J. Noronha, M. Munhoz - proceeding of QM 2017, Nucl. Phys. A967 (2017) 664-667.
- Dynamical bottomonium-suppression in a realistic AA background*, P.B. Gossiaux, R.K. – proceeding of SQM 2016, J. Phys. Conf. Ser. 779 (2017) no.1, 012041
- 2016** *Upsilon suppression in the Schrödinger-Langevin approach*, P.B. Gossiaux, R.K. - proceeding of QM 2015, Nuclear Physics A956 (2016) 737-740
- The Schrödinger-Langevin equation with and without thermal fluctuations*, R.K., P.B. Gossiaux - Annals of Physics 368 (2016) 267-295
- 2014** *Semi-classical approach to J/ψ suppression in high energy heavy-ion collisions*, R.K., P.B. Gossiaux - proceeding of SQM 2013, J. Phys. Conf. Ser. 509 012095

Conferences

- 2017** Quark-Matter, Chicago, USA (poster)
Quarkonium Realtime Dynamics, Heidelberg, Germany (talk)

- 2015** Rencontre de Physique des Particules, Paris, France (talk)
Strange Quark Matter, Dubna, Russia (talk)
- 2014** Ned Turic, Hersonissos, Greece (talk)
QGP-France, Etretat, France (talk)
- 2013** Heavy quarks and quarkonia in thermal QCD, Trento, Italy (talk)
Strange Quark Matter, Birmingham, UK (talk)

Experience

- Teaching** "Quantum Physics and Nanotechnologies" at Ecole des Mines de Nantes (2013-2015)
Lectures and tutorials
- Master thesis** Lund University - Theoretical High Energy Physics department (2011-2012)
Inclusive polarized J/ψ production in high energy hadron collisions, Supervisor: Prof. R. Pasechnik
- GE internship** General Electric Healthcare - mammograph troubleshooting guide - skills: VBA and HTML (2010)
- LKB internship** Kastler Brossel Laboratory in Paris (ENS - CNRS), multimode quantum optics group (2009)

Education

- 2010 – 2012** **Engineering diploma – Lund Tekniska Högskola**, Sweden, T.I.M.E. network double degree
Major in atomic and subatomic physics - courses in English
- 2008 – 2012** **Engineering diploma – Centrale de Lille Grande Ecole**, France
Multi-disciplinary engineering school
- 2009 – 2010** **Bachelor of Science in Physics – Université de Lille 1**, France
- 2006 – 2008** "Classes Préparatoires aux Grandes Ecoles" - Lycée Saint-Louis Paris
Intensive scientific preparation for competitive admission to the french engineering schools
- 2006** **High School diploma – scientific option**, with highest honours (20/20 in Physics)

Languages

- Fluent** French and English
- Basic** Portuguese, Spanish and Swedish

Computing

- Softwares** Catia, Matlab, Mathematica
- Languages** VBA, HTML, Bash, Latex, C++, Fortran, ROOT

Extra-curricular

- Astronomy** Former chairman of an astronomy club (20-30 members)
Several public talks
Design and construction of an 8-inch diameter telescope