

Sylvain Carpentier

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Department of Mathematics, Columbia University
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Research Interests

Mathematical physics, integrable systems of PDEs and differential-difference equations

Employment

Simons Postdoctoral Research Scientist at **Columbia University** 07/2017-06/2020

Education

-Graduate student at the **Massachusetts Institute of Technology**, Cambridge MA, 2013-2017
supervised by Victor Kac (Fall 2013 spent in Paris 7 under Marc Rosso)
-Master of mathematics at **Universite Paris Orsay** 2011-2012
-Student of the **Ecole Normale Supérieure de Paris** 2009-2013

Diplomas and Awards

- PhD in Mathematics, Massachusetts Institute of Technology 06/2017
- Johnson Prize for best graduate mathematical paper of the year at MIT 05/2017
A sufficient condition for a Rational Differential Operator to generate an Integrable System

Selected Talks

- DART IX, University of Leeds 08/2018
- Seminar of Mathematical physics, University of Columbia 04/2018
- Kolchin seminar, City University of New York Graduate Center 09/2017
- University of Kent, Canterbury 07/2017
- MIT Infinite dimensional algebra seminar, PhD defense 04/2017
- SISSA, Trieste 07/2016

Conferences and research visits

- *DART IX* at University of Leeds 08/2018
- *Representation Theory, Mathematical Physics and Integrable Systems* at CIRM, Luminy, France 06/2018
- University of Kent, UK, visiting J.P. Wang and A. Mikhailov 07/2017
- *Geometry and Representation Theory*, Schrodinger Institute, Vienna 01/2017
- SISSA, Trieste, visiting V. Kac and B. Dubrovin 07/2016
- *Perspectives in Lie Theory*, Centro de Giorgi, Pisa 01/2015
- Università di la Sapienza, Rome, visiting Alberto De Sole 05-07/2014
- IHES, Bures sur Yvette, France 2012/2013
- *Algebraic Structures in Integrable Systems* at Moscow State University, 12/2012

Teaching

-Calculus II at Columbia University, Fall 2018
-Teaching assistant for linear algebra at MIT, 2016/2017
-Teaching assistant for mathématiques I at Paris 7 Fall 2013

Language

French (native), English (fluent), Spanish (proficient)