

# 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 Superieure 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
- Univeristy 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 Univeristy 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
- Universita 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 lnear algebra at MIT, 2016/2017
- Teaching assistant for mathematiques I at Paris 7 Fall 2013

## Language

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