

## CURRICULUM VITAE

Mathias PÉTRÉOLLE

326, rue Garibaldi

69007 Lyon

France

Phone number : (+33) 6.50.09.66.33

Mail : petreolle@maths.univ-lyon1.fr

Born : 7 April 1989

### Jobs

Since 2012      Ph. D student at the Institut Camille Jordan (Lyon)

2009–2012      Élève normalien at the ÉNS Lyon (Mathematics Department), France.

### Education

**2015 : Ph. D thesis in Mathematics**, *Université Claude Bernard Lyon 1, France*.

Under the supervision of **Frédéric Jouhet**, defended on **November 25, 2015**.

Doctoral committee : Boris Adamczewski, Mireille Bousquet-Mélou (president), Guo-Niu Han (reviewer), Frédéric Jouhet, Christian Krattenthaler (reviewer) et Vincent Pilaud.

Title : Quelques développements combinatoires autour des groupes de Coxeter et des partitions d'entiers.

**2012 : Master**, *Éns de Lyon* and *Université Claude Bernard Lyon 1*.

**2010 : Bachelor**, *Éns de Lyon*.

**2009** : Admitted in the *Éns de Lyon*.

**2006 : Baccalauréat**, *Perpignan*.

### Publications and scientific communications

#### • Publications and preprint :

– Mathias Pétréolle, A Nekrasov-Okounkov formula in type  $\tilde{C}$ , to appear in a proceeding volume of Discrete Mathematics and Theoretical Computer Science, extended abstract of the second article

– Mathias Pétréolle, A Nekrasov-Okounkov type formula for  $\tilde{C}$ , arXiv 1505 : 01295, 2015, accepted for publication in Advances in Applied Mathematics, 31p.

–Characterization of Cyclically Fully commutative elements in finite and affine Coxeter Groups, arXiv :1403.1130v2, 2014, 28p, submitted.

• **In preparation :**

–The Littlewood decomposition of self-conjugate partitions.

–Rational generating function for cyclically fully commutative elements.

## **Oral presentation in conferences**

– Journées Combinatoires de Bordeaux, Bordeaux, January 2016.

– Journées Combinatoires de Lyon, Lyon, November 2015.

– Journées du GT “Combinatoire algébrique”, Saclay (LIX), September 2015.

– Algorithmic and Enumerative Combinatorics, Linz (Austria), July 2015.

– Formal Power Series and Algebraic Combinatorics, Daejeon (South Korea), July 2015.

– Séminaire Lotharingien de Combinatoire, Ellwangen (Germany), March 2015.

– Séminaire Lotharingien de Combinatoire, Strobl (Austria), September 2014.

– Summer school “Algorithmic and Enumerative Combinatorics”, Linz (Austria), August 2014.

– Séminaire Lotharingien de Combinatoire, Lyon 1, March 2014.

## **Séminar**

– Séminaire du Lacim, Montréal, June 22th 2015.

– Séminaire de Combinatoire et Théorie des nombres, Lyon, April 7th 2015.

– Séminaire des Doctorants, Dijon, December 1st 2014.

– Séminaire de Théorie des nombres, Grenoble, November 27th 2014.

– Séminaire du LIAFA, Paris, Novembre 13th 2014.

– Journée de Combinatoire et Théorie des nombres, Lyon, October 1st 2013.

## **Languages and computer skills**

French : mother tongue

English : fluent

German : fließend

Programming languages : C++, Caml, Maple, Tex.

## Teaching

- 2015–2016 Courses and exercices sessions, Algorithmics and programming for 2nd year undergraduate students in Institut Universitaire de Technologie.
- 2014–2015 Exercices sessions, Mathematics tools for 1st year undergraduate students in Institut Universitaire de Technologie, fall and spring semester.
- 2013–2014 Exercices sessions, Mathematics tools for 1st year undergraduate students in Institut Universitaire de Technologie, spring semester.
- 2012–2013 Weekly oral examination in Algebra, Analysis and Probability for 2nd year undergraduate students in Lycee Sainte-Marie.