Léa BITTMANN

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# Education and Academic career

Education and Ac	aueinic career
2019 –	Universität Wien, Vienna.
	Postdoctoral Researcher in the team of Anton Mellit
2016 - 2019	Université Paris Diderot, Paris.
	PhD in Mathematics, Advisor: David Hernandez
July 2016	Agrégation de mathématiques, French diploma for higher education
July 2010	teaching.
2014-2015	Université Paris Diderot, Paris, France.
	M.Sc. in Fundamental Mathematics, Summa cum Laude.
2012 - 2014	ÉCOLE NORMALE SUPÉRIEURE (ENS), Paris.
	First year of M.Sc. in Fundamental Mathematics.
	B.Sc. in Mathematics, with high honors.
2009 - 2012	LYCÉE DU PARC, Lyon, France.
2003 2012	Completed a three-year scientific program in preparation for the national
	"Grandes Écoles" competitive exam.
	Grandes Ecoles competitive exam.
Publications	
November 2019	A quantum cluster algebra approach to representations of simply-laced
November 2019	
T 1 0010	quantum affine algebras, preprint: arXiv:1911.13110.
July 2019	PhD Thesis: Quantum Grothendieck rings, cluster algebras and quantum
	affine category $\mathcal{O}$ .
February 2019	Quantum Grothendieck rings as quantum cluster algebras, preprint:
	arXiv:1902.00502.
August 2018	Asymptotics of Standard Modules of Quantum Affine Algebras, in Alge-
	bras and Representation Theory.
September 2015	Master Thesis: Representations of the Yangian in Deligne's category
	$Rep(Gl_t)$ .
Talks - Posters	
February 2020	COLLOQUE TOURNANT DU GDR TLAG, IHP, Paris, France.
Tebruary 2020	Représentations des algèbres affines quantiques du point de vue des al-
	$g\`{e}bres\ amass\'{e}es\ quantiques.$
November 2019	SEMINAR "REPRESENTATION THEORY AND AUTOMORPHIC FORMS",
Novelliber 2013	UNIVERSITÄT WIEN, Vienna, Austria.
T 0010	R-matrices and quantum groups.
June 2019	CLUSTER ALGEBRA 2019, POSTER OF THE DAY, Kyoto, Japan.
	Quantum Grothendieck rings as quantum cluster algebras.
March 2019	Number Theory Seminar, Universität Wien, Vienna, Austria.
	$Representations \ of \ quantum \ affine \ algebras \ via \ cluster \ algebras.$
February 2019	TENURE-TRACK TALK, UC RIVERSIDE, Riverside, USA.
	Baxter relation, cluster algebras and quantum cluster algebras.
January 2019	SÉMINAIRE GROUPES, REPRÉSENTATIONS ET GÉOMÉTRIE, UNIVER-
· ·	SITÉ PARIS-DIDEROT, Paris, France.

Anneaux de Grothendieck quantiques et algèbres amassées quantiques.

December 2018	XXV BRAZILIAN ALGEBRA SCHOOL, Campinas, Brazil.
November 2018	t-deformations of Grothendieck rings as quantum cluster algebras.  Oberseminar Algebra, Universität zu Köln, Cologne, Germany.
110Velliber 2016	t-deformations of Grothendieck rings as quantum cluster algebras.
November 2018	AACHEN UNIVERSITY, Aachen, Germany.
	$Asymptotics\ of\ standard\ modules\ of\ quantum\ affine\ algebras$ .
November 2018	MATHEMATICAL PHYSICS SEMINAR, ETH, Zurich.
	$Quantum\ Grothendieck\ rings\ for\ quantum\ affine\ algebras.$
June 2018	QUANTUM AFFINE ALGEBRAS, Washington DC, USA.
	t-deformations of Grothendieck rings as quantum cluster algebras.
May 2018	UC RIVERSIDE, Riverside, USA.
	Asymptotics of standard modules of quantum affine algebras.
January 2017	GEOMETRY AND REPRESENTATION THEORY, ESI, Vienna, Austria.

#### Research visits

May 2018	UC RIVERSIDE, Riverside, USA.
	Visited Pr. Vyjayanthi Chari.
$March-July\ 2015$	Massachusetts Institute of Technology, Boston, USA.
	Research internship in Mathematics. Advisor: Pr. Pavel Etingof.

Quantum Grothendieck Rings and Baxter relations.

# Teaching

2019 –	Lycée Français de Vienne, Vienna, Austria.
	Occasional substitute teacher in senior and junior high school classes.
2017-2019	Université Paris Diderot, Paris, France.
	Teaching Assistant in Mathematics, for second year B.Sc. students
	preparing for engineer schools.
2016-2017	Université Paris Diderot, Paris, France.
	Teaching Assistant in Mathematics, for first year B.Sc. students ma-
	joring in Computer Science.
2013-2015	Lycée Saint Louis, Paris, France.
	Oral examiner in Mathematics.

## Administration

- $\cdot$  **Reviewer** for the following journals: Journal of the London Mathematical Society, Journal of Algebra and MathSciNet.
- $\cdot$  Member of the PhD Student Body at the Institut de Mathématiques de Jussieu-Paris Rive Gauche (IMJ-PRG).
- $\cdot$  Organizer of biannual meetings between graduate students and PhD students.
- · Member of the Gender Equality Committee of the IMJ-PRG.

## Languages

French: Native speaker.

English: Fluent.

Spanish: Good working knowledge.

#### Interests and Activities

- · Sports: Basketball (University Championship), Scuba Diving (Open Water Diver), Cheerleading in ENS's squad, running.
- · Computer skills : good knowledge of Caml, Maple and LateX.