# International Ph.D. Lab. In Mathematics « Representation Theory of Lie groups, Mathematical Physics, and Combinatorics» Reims University, June 24-28, 2019

### Monday, June 24

9.00 – 9.15 Opening address by Guillaume Gellé, President of the Reims University.

9.15 – 10.15 Toshiyuki Kobayashi, Symmetry breaking operators: general theory and concrete construction for reductive groups I.

10.30 – 11.30 Valentina Kirichenko, Newton-Okounkov convex bodies and representation theory I.

11.40 – 12.40 Angela Pasquale, Symmetric spaces, Fourier analysis and resonances I.

12.40 – 14.00 Lunch at the university cafeteria (CROUS)

14.00 – 15.00 Valentina Kirichenko, Newton-Okounkov convex bodies and representtation theory II.

15.15 – 16.15 Angela Pasquale, Symmetric spaces, Fourier analysis and resonances II.

16.15 – 16.45 Coffee break

16.45 – 18.00 Seminars and individual meetings

### Tuesday, June 25

9.00 – 10.00 Tomasz Przibinda, An elementary construction of the Weil representation I.

10.15 – 11.15 Evgeny Smirnov, Schubert polynomials and toric degenerations of flag varieties I.

11.30 – 12.30 Toshiyuki Kobayashi, Symmetry breaking operators: general theory and concrete construction for reductive groups II.

12.30 – 14.00 Lunch at the university cafeteria (CROUS)

14.00 – 15.00 Tomasz Przibinda, An elementary construction of the Weil representation II.

15.15 – 16.15 Evgeny Smirnov, Schubert polynomials and toric degenerations of flag varieties I.

16.15 – 16.45 *Coffee break* 

16.45 – 18.00 Seminars and individual meetings.

#### Wednesday, June 26

9.00 – 10.00 Evgeny Feigin, Semi-infinite Plücker relations I.

10.15 – 11.15 Vassili Gorbounov, Electrical mathematics I.

11.30 – 12.30 Vassili Gorbounov, Electrical mathematics II.

12.30 – 14.00 Lunch at the university cafeteria (CROUS)

Free afternoon with a possibility to attend a guided tour of Reims cathedral.

18.30 – 19.30 François Alouges, Le <del>grand</del> petit bain ou la natation synchronisée microscopique. General audience talk on the occasion of 80th anniversary of the CNRS. Campus Croix-Rouge.

### Thursday, June 27

- 9.00 10.00 Shintaro Yanagida, Introduction to Hall Algebras I.
- 10.15 11.15 Sophie Morier-Genoud, Continued fractions and combinatorics I.
- 11.30 12.30 Vladlen Timorin, Combinatorics of Gelfand-Zetlin polytope I.
- 12.30 14.00 Lunch at the university cafeteria (CROUS)
- 14.00 15.00 00 Evgeny Feigin, Semi-infinite Plücker relations II.
- 15.15 16.15 Shintaro Yanagida, Introduction to Hall Algebras II.
- 16.15 16.45 Coffee break
- 16.45 18.00 Seminars and individual meetings.
- 18.30 20.00 Dinner Party at Villa Douce.

## Friday, June 28

- 9.00 10.00 Valentin Ovsienko, q-deformed rational numbers I.
- 10.15 11.15 Vladlen Timorin, Combinatorics of Gelfand-Zetlin polytope II.
- 11.30 12.30 Sophie Morier-Genoud, Continued fractions and combinatorics II.
- 12.30 14.00 Lunch at the university cafeteria (CROUS)
- 14.00 15.00 Valentin Ovsienko, q-deformed rational numbers II.