BANFF WORKSHOP ON "DIOPHANTINE METHODS, LATTICES, AND ARITHMETIC THEORY OF QUADRATIC FORMS": SCHEDULE OF TALKS

1. Monday, November 14 - morning

9:00-10:00 am – **Gabriele Nebe (RWTH Aachen University):** *Extremal lattices and codes*
10:00-10:45 – coffee break
10:45-11:15 – **Renaud Coulangeon (University of Bordeaux):** *The unreasonable effectiveness of tensor product*

2. Monday, November 14 - afternoon

14:30-15:00 – **Abhinav Kumar (Massachusetts Institute of Technology):** *Energy minimization for lattices and periodic configurations, and formal duality*
15:00 -15:30 – coffee break
15:30-16:00 – **Achill Schürmann (Universität Rostock):** *Strictly periodic extreme lattices*
16:15-16:45 – **Rudolf Scharlau (Universität Dortmund):** *Automorphism groups of lattices in large genera*

3. Tuesday, November 15 - morning

9:00-10:00 – **Jeffrey Thunder (Northern Illinois University):** *Counting certain points of given height in the function field setting*
10:00-10:45 – coffee break
10:45-11:15 – **Martin Widmer (Graz University of Technology):** *Integral points of fixed degree and bounded height*

4. Tuesday, November 15 - afternoon

13:30-14:30 – **Sinnou David (Université Pierre et Marie Curie - Paris 6):** *A journey through heights: the Lehmer problem*
14:30 -15:00 – coffee break
15:00-15:30 – **Damien Roy (University of Ottawa):** *On rational approximation to real points on plane quadratic curves defined over $\mathbb{Q}$*
15:40-16:10 – **Cameron Stewart (University of Waterloo):** *Exceptional units and cyclic resultants*
16:20-16:50 – **Takao Watanabe (Osaka University):** *Polyhedral reduction of Humbert forms over a totally real number field*
17:00-17:30 – **Byeong-Kweon Oh (Seoul National University):** *Class numbers of ternary quadratic forms*

5. WEDNESDAY, NOVEMBER 16 - MORNING

9:00-10:00 – **Eva Bayer-Fluckiger (École Polytechnique Fédérale de Lausanne):** *Galois algebras, Hasse principle and induction-restriction methods*
10:00-10:45 – coffee break
10:45-11:15 – **Ricardo Baeza (Universidad de Talca):** *Levels and sublevels of Dedekind rings*

6. THURSDAY, NOVEMBER 17 - MORNING

9:00-10:00 – **Roger Heath-Brown (University of Oxford):** *p-adic zeros of systems of quadratic forms*
10:00-10:45 – coffee break
10:45-11:15 – **Tim Browning (University of Bristol):** *Square-free hyperplanes on quadrics*

7. THURSDAY, NOVEMBER 17 - AFTERNOON

13:30-14:00 – **Bruce Reznick (University of Illinois at Urbana Champaign):** *Linear dependence among powers of quadratic forms* 14:00 -14:45 – coffee break
14:45-15:15 – **Rainer Dietmann (Royal Holloway, University of London):** *Weyl's inequality and systems of forms*
15:30-16:00 – **Ben Kane (University of Cologne):** *Representations by triangular, square, and pentagonal sums*
16:15-16:45 – **Mark Watkins (University of Sydney):** *Indefinite LLL and solving quadratic equations*

8. FRIDAY, NOVEMBER 18 - MORNING

9:00-10:00 – **Jean-Louis Colliot-Thélène (CNRS, Université Paris-Sud, France):** *Sur l'équation $q(x, y, z) = P(t)$ en entiers*
10:00-10:45 – coffee break
10:45-11:15 – **Jonathan Hanke (University of Georgia):** *Understanding the (total) mass of quadratic forms of fixed determinant*