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Title: Summer School in Explicit Methods for Abelian Varieties

Event Type: Summer-School

Location:

University of Calgary

Dates:

June 16-18, 2016

Topic:

Abelian varieties are fundamental objects of study in algebraic geometry, an indispensable tool in number theory, and a crucial source of practical settings for modern cryptography and coding theory. At this summer school, world renowned experts will provide training through lectures and mentored group work, introducing participants to the topic and preparing them for research in the area.

Methodology:

Lectures and problem sessions.

Objectives Achieved:

We had a great group of engaged, hard working students, and overall an excellent summer school. Students had two lectures from each instructor - and introductory lecture to the topic, followed by a more advanced lecture focusing on open research problems. The material was reinforced by group problem sessions, with the instructors providing assistance as needed. Most of the students stayed on for the subsequent Canadian Number Theory Association (CNTA) conference, where, as planned, the preparation at the summer school gave them a leg up in following many of the talks at the conference.

Organizers:

Bauer, Mark, Mathematics and Statistics, University of Calgary

Jacobson, Michael, Computer Science, University of Calgary

Scheidler, Renate, Mathematics and Statistics, University of Calgary

Speakers:

Jennifer Balakrishnan (University of Oxford): p -adic heights on Jacobians of hyperelliptic curves

Lassina Dembele (University of Warwick): abelian surfaces with everywhere good reduction

Jan Steffen Mueller (University of Oldenburg): canonical heights on Jacobians of hyperelliptic curves

Rachel Pries (Colorado State University): open questions for Jacobians of curves over finite fields

Links:

<https://www.pims.math.ca/scientific-event/160616-ssemav>
