

**Mini-Workshop on  
“Explicit Problems in Diophantine Analysis and Geometry”**

**organized by Clemens Fuchs**

**November 29 - 30, 2013**

in frame of the ESI-Programme  
“Heights in Diophantine geometry, group theory and additive combinatorics”

organized by  
Robert Tichy, Jeffrey Vaaler, Martin Widmer, Umberto Zannier

• **Friday, November 29, 2013**

14:30 – 14:45 Opening

*Welcome words and short presentation of the FWF-project P24574*

14:45 – 15:30 **Rafael von Känel**

*Modularity and integral points on moduli schemes*

15:40 – 16:25 **Lajos Hajdu**

*Explicit solution of exponential diophantine equations using a Hasse-type principle*

16:35 – 17:20 **Roland Paulin**

*The minimal degree of morphisms between curves*

17:30 – 18:15 **Ákos Pintér**

*Variations on a theme: the power values of power sums*

• **Saturday, November 30, 2013**

09:30 – 10:15 **Attila Pethő**

*On a key exchange protocol based on Diophantine equations*

10:25 – 11:10 **Volker Ziegler**

*On the number of primes factors of  $\prod_{a,b \in A} (ab + 1)$  for small sets  $A$*

11:20 – 12:05 **Mingxi Wang**

*Curves and special points for families of abelian varieties*

12:15 – 13:00 **Andrej Dujella**

*On the existence of rational Diophantine quintuples with the property  $D(q)$*

**All lectures take place in the ESI Boltzmann Lecture Hall**