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Der Wissenschaftsfonds.



Institut f. Analysis und Zahlentheorie

**Zahlentheoretisches Kolloquium**

Freitag, 13. 1. 2017, 14:00 Uhr s.t.

Seminarraum Analysis-Zahlentheorie (NT02008), Kopernikusgasse 24/II

## **There are no Diophantine Quintuples**

**ASS.-PROF. DR. VOLKER ZIEGLER**

(Universität Salzburg)

Abstract: A  $m$ -tuple of distinct positive integers  $(a_1, \dots, a_m)$  is called a Diophantine  $m$ -tuple if  $a_i a_j + 1$  is a perfect square for all  $i \neq j$ . It was a long outstanding question whether a Diophantine quintuple exists. In a recent paper joint with Bo He and Alain Togbè we recently proved that none exists. After a short introduction to the problem we present the new ideas that led to the proof of the so-called Diophantine quintuple conjecture.

R.Tichy