Der Wissenschaftsfonds.

Institut f. Analysis und Computational Number Theory (Math. A)

Zahlentheoretisches Kolloquium

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The class number one problem for certain real quadratic fields

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Abstract:

Let us consider the 2-parameter family of real quadratic fields with square-free discriminant $D = (AN)^2+4A$ for positive odd integers A and N. The class number one problem for this family is analogous to the class number one problem for imaginary quadratic fields but up to now the only known solution used the generalized Riemann hypothesis. Still there were unconditional results about certain subfamilies. In this talk the author would show how combining methods of Biró, a result from her PhD thesis and computer calculations we solve the class number one problem for this family. This is a joint work with A. Biró.

R.Tichy