
Coxeter-James Prize
Prix Coxeter-James

MICHAEL GROECHENIG, University of Toronto

Applications of finite and p -adic fields to complex algebraic geometry

The arithmetic properties of finite and p -adic fields and the topological aspects of complex geometry are intricately linked. Starting with the Weil conjectures and ensuing theories, this talk will span a narrative arc between classical and recent applications of this connection, with a particular focus on those regarding moduli spaces of Higgs bundles. Joint work with de Jong, Esnault, Wyss, and Ziegler will be discussed during the talk's second half.