Cleveland State University
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COLLOQUIUM

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Algebraic Curves and Codes

Friday March 3rd at 2:30pm in RT 1516

Bio: Luciane Quoos received the M.S. and Ph.D. degrees in mathematics from IMPA, Rio de Janeiro, in 1995 and 2000, respectively. In 2002, she was a Postdoctoral Researcher at the Norwegian University of Science and Technology. In 2016, she took a one-year sabbatical at the Università degli Studi di Perugia. She is currently a professor at the Departamento de Matemática, Universidade Federal do Rio de Janeiro, Rio de Janeiro. Her research interests include maximal and with many rational points curves over finite fields, algebraic geometry codes, and permutation polynomials.

Abstract: In the early eighties tools from algebraic geometry were applied by V. Goppa to construct linear codes using algebraic curves over finite fields. Nowadays these codes are called algebraic geometry codes (AG codes) and have been an area of intense research in the last decades. The AG codes are closely related to maximal curves, since the explicit construction of algebraic geometry codes over maximal curves provides codes with good parameters. In this talk we are going to introduce AG codes and some special families.

Refreshments will be served in RT 1517 at 2:10pm