



Mathematics and CS Seminar

Exponential sums over finite fields in many variables

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The Riemann Hypothesis over finite fields, proved by Deligne, provides in principle a clear picture of the properties of arbitrary exponential sums over finite fields. In the case of sums with many variables, it remains a very challenging problem to effectively exploit this information in concrete applications. The talk will survey some recent and ongoing works where significant progress has been made. This includes bilinear forms with hypergeometric sums (with Fouvry, Michel and Sawin), quantitative stratification results (with Bonolis and Woo) and discrete Fourier transforms over commutative algebraic groups (with Forey and Fresn).

Thursday, December 12, 2024 01:00pm - 03:00pm

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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