The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University

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List-Decodeable Codes

Wed Dec 06, 2023, MH320

Abstract: Suppose that Alice wants to send a message to Bob, but Bob only receives a noisy copy of what Alice sends. How can Alice communicate with Bob reliably? The answer is to use (error-correcting) codes. Codes protect information from the adverse effects of noise, and they are also fundamental combinatorial objects that have rich connections to mathematics and computer science. I will give an introduction to error-correcting codes, and discuss one particular coding theory context: list-decoding.

Background: One class in linear algebra.

About the speaker: Ray Li is an Assistant Professor at Santa Clara University. Previously he was an NSF Postdoc at UC Berkeley working with Venkatesan Guruswami, and he received his PhD from Stanford University, advised by Mary Wootters and Jacob Fox. His research interests include error-correcting codes, fine grained complexity, approximation algorithms, and combinatorics.

Snacks in MacQuarrie Hall 331B at 2:40pm
Talk starts at 3:00pm

For more information, see our full schedule at:

`http://www.timhsu.net/colloq/`