

## Randomized sketching for low-rank least squares with regularization

*Monday, September 1, 2025 9:30 AM (30 minutes)*

In this talk, we explore the use of randomized sketching for solving least squares arising from inverse problems, and that may need regularization. We propose the use of sketching inside a flexible LSQR scheme, and discuss different options that are suitable for various situations (for instance, small or large residual). We show how the use of sketching can help overcome practical issues that may arise in regularization arising from computed tomography, such as the availability of approximate or inexact transposed operators.

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