

Thursday, March 3, 2016
4:30–5:20 p.m.
SAS 2102

Deblurring: seeing what is invisible to others

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On family vacations, you might take several photographs - just in case some of them turn out to be blurry. Nowadays cameras are digital and you can take as many photographs as you like. In **medical imaging**, taking many photos can be expensive or harmful, so rather than taking a new photo we might want to improve a blurry photo that we already have.

Image deblurring seeks to recover the original, sharp image by using a **mathematical model of the blurring process**. If we know some of the details of the blurring process, we can hope to work backwards to undo the blur.

Linear Algebra provides us with several tools to tackle image deblurring. I will explain what the **Singular Value Decomposition** is and how it can be used for deblurring images. This talk will assume a little linear algebra but should be accessible to most undergrads.

NCSU Society for Undergraduate Mathematics

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Mathematics and pizza!