

NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING
SEMINAR

Recent Advances in Ptychography

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Abstract: Phase retrieval has been recognized as an applied mathematicians dream problem due to its simple form, yet interesting and challenging properties to be efficiently solved. Ptychography, a special type of phase retrieval imaging technique, offers an oversampling justification to fix the non-uniqueness of traditional phase retrieval problem. The technique consists of a coherent beam that is scanned across an object in a series of overlapping positions, leading to reliable and improved reconstructions. Furthermore, ptychographic microscopes allow for large fields to be imaged at high resolution, however, at the cost of additional computational expense. In this talk, I will discuss the mathematically interesting properties of ptychography in ways that solving linear inverse problem will never be, and pose potential remedies to numerically accelerate the ptychographic reconstruction

Friday, October 30, 2020, 2:40 pm
<https://emory.zoom.us/j/95900585494>

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