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**The Hong Kong University of Science and Technology**

**Department of Mathematics**

**Seminar on Applied Mathematics**

**An Algorithmic Overview of Phase Retrieval**

*by*

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**Abstract**

Phase retrieval arises from the optics and engineering imaging sciences, such as X-ray coherence diffraction. It is to reconstruct the signal from its module of Fourier transform. Its difficulty results from the missing phase information. Besides its intrinsic importance in optical imaging, its connection to low rank matrix completion and provably nonconvex optimization makes its renew interests. A large body of researches focus on the numerical algorithms from different modelings. In this talk, an overview of the algorithms is given. The differences between the convex and nonconvex algorithms are highlighted and the recent developments are also presented.

***Date: Tuesday, 17 October 2017***

***Time: 3:00p.m. – 4:00p.m.***

***Venue: Room 2408, Academic Building  
(near Lifts 17 & 18), HKUST***

***All are welcome!***