



Department of Mathematics  
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# Colloquium

## *Qualitative Study of 2D Schrödinger Equation with Exponential Nonlinearity*

*Professor Hajer BAHOURI*  
*Université Paris-Est - Créteil*

### Abstract

The aim of this lecture is to investigate the behavior of 2D Schrödinger equation with exponential nonlinearity. Such equations arise in 3D nonlinear optics problems. The analysis we conducted in this work emphasizes that the nonlinear effect in this framework only stems from the 1-oscillating component of the sequence of the Cauchy data, namely the component which is asymptotically localized in frequency space in a unit ring.

Date: October 26, 2016 (Wednesday)  
Time: 3:30pm ~ 4:30pm  
Venue: Room 219, Lady Shaw Building,  
The Chinese University of Hong Kong, Shatin

*All are Welcome*