

**Service d'Astrophysique**  
**SÉMINAIRE**

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**Lundi 21 juin 11h00**

**CEA Saclay, Orme des Merisiers Bât 709, salle 3 (Rdc)**

**EXCITING WAVES AND MODES IN BLACK-HOLE  
ACCRETION DISKS AND OTHER ASTROPHYSICAL  
ROTATING FLOWS**

**Dong LAI**

Cornell University

I will review recent works on the wave dynamics of black-hole accretion disks, focusing on global disk instabilities and wave modes trapped in the inner disk region. I will explain the role of wave super-reflection and wave absorption at the corotation resonance, as well as how general relativistic effects may help to drive these modes unstable. The effects of disk magnetic field will be emphasized. Applications to the quasi-periodic oscillations observed in accreting black hole systems will also be discussed. Similar physics are also important for other astrophysical problems involving rotating flows, such as the rotational instability in young neutron stars and planet migration in magnetized disks.

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Le cafe sera servi 10 minutes avant

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