

## 2016 Jacques Solvay International Chair in Physics

# Professor Dam Thanh Son

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### UPCOMING LECTURES

*Lecture 1: Monday 2 October at 4 - 6 P.M.*

*Lecture 2: Tuesday 3 October at 4 - 6 P.M.*

*Lecture 3: Wednesday 4 October at 4 - 6 P.M.*

*Lecture 4: Thursday 5 October at 4 - 5 P.M.*

*Lecture 5: Friday 6 October at 4 - 5 P.M.*

### Modern field-theoretical methods in condensed matter physics

I will describe the modern applications of quantum field theories in condensed matter physics. I will concentrate on the following topics:

Effective field theory of bosonic superfluids

Fermi liquids: Landau theory, bosonization

Berry phase, chiral anomaly in solids

Quantum Hall effect: phenomenology, the half-filled Landau level, particle-vortex duality, Dirac composite fermion theory

#### SOLVAY ROOM

BUILDING N.O. - 5TH FLOOR - UNIVERSITÉ LIBRE DE BRUXELLES

CAMPUS PLAINE - BOULEVARD DU TRIOMPHE

ACCESS 2- 1050 BRUSSELS

