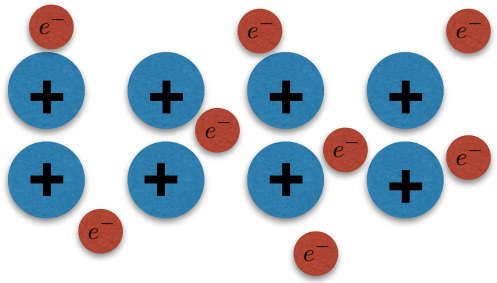
What is condensed matter?

Emergence of collective macroscopic properties from many many (~ 10^{23}) microscopic constituents



Metal, insulator, semiconductor, semimetal, magnet, superconductor…

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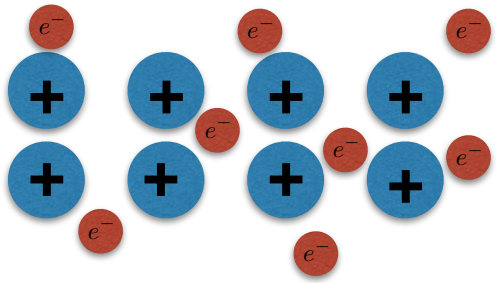

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Universality across different systems (e.g. quantized conductance, order parameter..)

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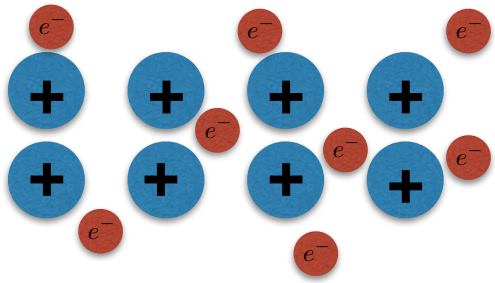

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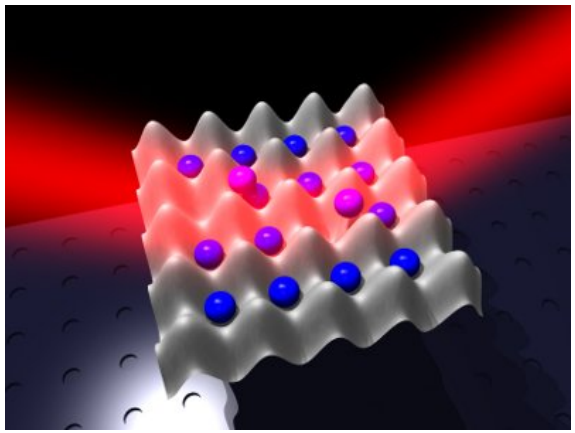
Quantum simulation and computation



Connections with computer science, statistical physics, quantum optics, quantum information

Ignuscio lab

Condensed Matter Theory at Boston University

David Campbell

Anders Sandvik

Claudio Chamon

Anushya Chandran

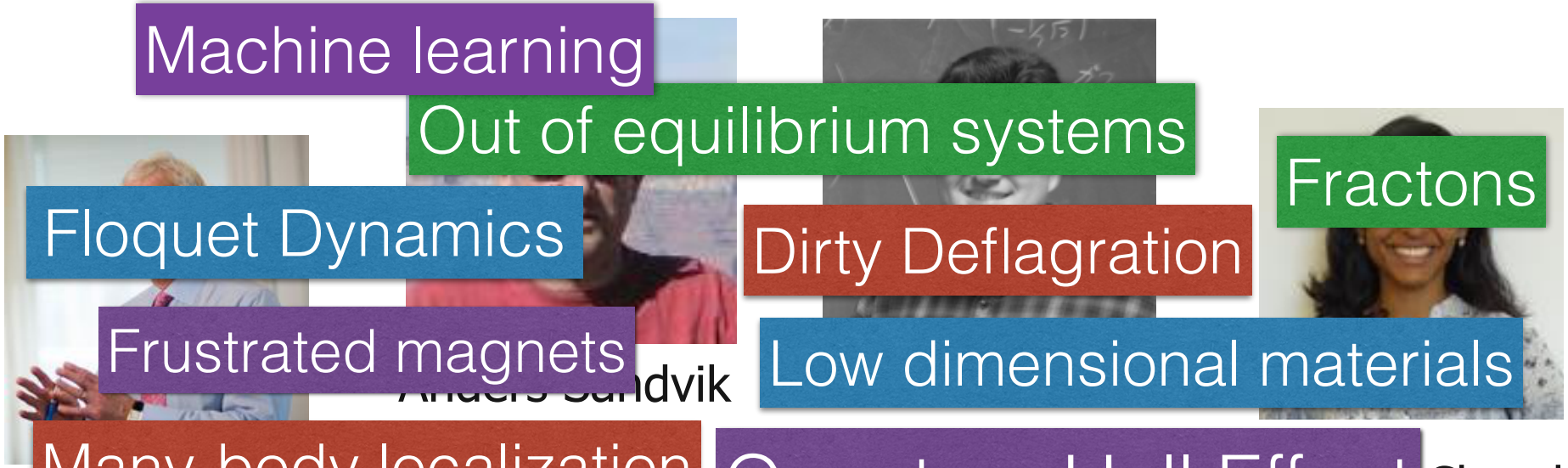
Andrei Ruckenstein

Anatoli Polkovnikov

Chris Laumann

Bill Klein

Condensed Matter Theory at Boston University



Machine learning

Out of equilibrium systems

Floquet Dynamics

Dirty Deflagration

Fractons

Frustrated magnets

Low dimensional materials

ndvik

Many-body localization

Quantum Hall Effect

Chandran

Davi

Ultracold atoms

Quantum glassiness

Entanglement

Earthquakes

Fractionalization

Quasiperiodic Driving

Superconductivity

Hydrodynamics

Nonlinear Dynamics

Quantum Computation

Topology

An

Bubbles and Nucleation

Quantum Critical Dynamics

MBTA Dynamics

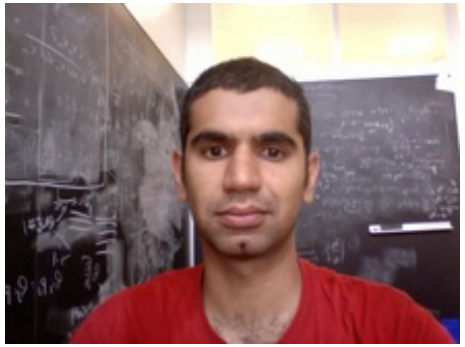
Quantum Monte Carlo

ikov

Condensed Matter Theory at Boston University

Bio / Statistical

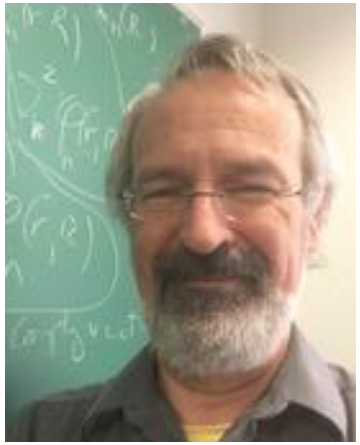
Kirill Korolev



Pankaj Mehta

Affiliated Faculty

Sahar Sharifzadeh



David Coker