IRU Data-driven materials science

IRU Mathematical challenges in field theory

New frontiers in arithmetic and algebraic geometry

Representations and symmetries in algebra and topology

Facets of geometry: manifolds, dynamics, and curvature

Probabilistic modeling and singular stochastic dynamics

High dimensionality and data analysis

Singular geometries, optimal transport, and geometry processing

Mathematical modeling, analysis, and algorithms

Deep structures of spaces and invariants

High dimensionality, singularities, and randomness

Mathematical modeling of matter and materials

Information economics

Combinatorial optimization, complexity, and chip design

Harmonic analysis and numerical multiscale approximation

A3

A2

A1

A

B

C

C4

C3

C2

C1

B1

B2

B3

3 IRUs at the interface of mathematics and life sciences