

Alexander Barvinok

University of Michigan

April 24 • 25 • 26

4:30–5:30pm

Lectures: Rm. 2-190

Reception: 4pm, Rm. 2-290

Combinatorics, complexity and complex zeros of partition functions

Lecture 1

How (and why) we compute really
big polynomials

Lecture 2

More examples from combinatorics
and statistical physics

Lecture 3

Computational complexity
and physics: diverging paths?

SIMONS LECTURES IN MATHEMATICS 2019



Massachusetts
Institute of
Technology

June Huh

Institute for Advanced Study

April 29 • 30 • May 1

4:30–5:30pm

Lectures: Rm. 2-190

Reception: 4pm, Rm. 2-290

Lorentzian polynomials

Lecture 1

The space of Lorentzian polynomials

Lecture 2

Discrete convexity and continuous
convexity: a tropical connection

Lecture 3

Hodge-Riemann relations
for Potts model partition functions
and other examples

