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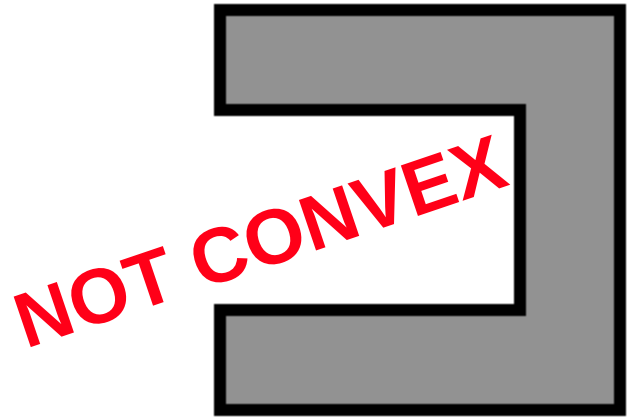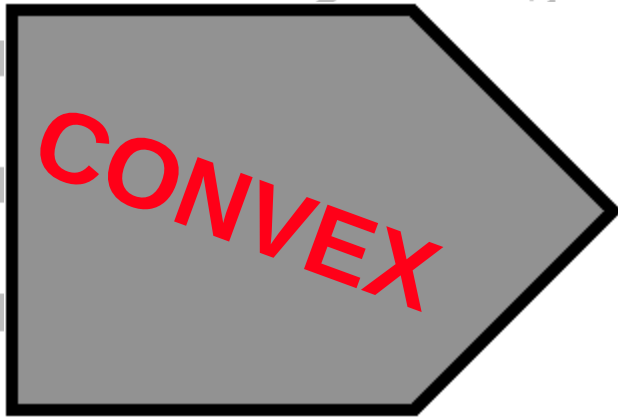## HUMBOLDT STATE UNIVERSITY

DEPARTMENT OF MATHEMATICS

Spring 2019 Colloquium Series

Points, Polytopes and Polynomials

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A lattice polytope is the convex hull of finitely many points in the integer lattice. The number of lattice points in positive integer dilates of a lattice polytope is given by a polynomial --- the Ehrhart polynomial of the polytope. Ehrhart polynomials appear in a variety of different areas such as commutative algebra, representation theory and optimization and encode fundamental properties of the polytope such as the volume and the dimension. In this talk I will introduce the basic concepts of Ehrhart theory with a focus on lattice polygons in the plane and highlight open research questions. No prior knowledge of Ehrhart theory will be required.

Katharina Jochemko

**Microsoft Research Fellow,
Simons Institute for the Theory of Computing**

Thursday, April 4, 2019

BSS Room 166, 4:00 PM

To view this poster online, go to http://www.humboldt.edu/math/news-and-events/math-colloquium
We cordially invite you to the Pre-Colloquium Tea on the third floor of the BSS
building at 3:30 pm on Thursday.