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Location: Buchanan A202

Illumination and X-Raying of Convex Bodies

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In 1960, Hadwiger and Boltyanski independently posed the same elementary question concerning convex bodies: is it possible to illuminate any convex body in d -dimensional Euclidean space by at most 2^d light sources for $d \geq 2$? This problem, known as the Boltyanski-Hadwiger Illumination Conjecture, remains open in dimensions three and greater. This talk will introduce the concept of illumination and the related but more recent concept of X-raying.