

# The Mahler conjecture, billiards and systolic inequalities

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In 1939, Mahler asked whether the product of the volumes of a centrally symmetric convex body and its polar is minimized by a cube. He gave a positive answer to this question in dimension 2. In this talk I will explain how this is related to billiard dynamics through symplectic geometry and how a more recent conjecture of Viterbo implies that Mahler's conjecture holds.