On the X-ray Number of Almost Smooth Convex Bodies and of Convex Bodies of Constant Width

Dedicated to Ted Bisztriczky, on his sixtieth birthday.

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Abstract. The X-ray numbers of some classes of convex bodies are investigated. In particular, we give a proof of the X-ray Conjecture as well as of the Illumination Conjecture for almost smooth convex bodies of any dimension and for convex bodies of constant width of dimensions 3, 4, 5 and 6.

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