Barilla, D.; Puglisi, A.
On a Buffon’s problem. (English) [Zbl 1435.60009]

Summary: In this note we compute the probability \( p_{\Sigma, R} \) that a random sphere \( \Sigma \) whose diameter \( D \) is a bounded random variable \( \Delta \), and known moments \( E(\Delta), E(\Delta^2), E(\Delta^3) \), intersects a lattice \( R \) of parallelepipeds of dimensions \( (a, b, \alpha), (b, c, \beta), (a, c, \gamma) \).

For the entire collection see [Zbl 1390.52004].

MSC:

60D05 Geometric probability and stochastic geometry
52A22 Random convex sets and integral geometry (aspects of convex geometry)

Keywords:

integral geometry; Lie groups; invariant varieties

Full Text: Link