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Lattice points in some special three-dimensional convex bodies with points of Gaussian curvature zero at the boundary

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Abstract: We investigate the number of lattice points in special three-dimensional convex bodies. They are called convex bodies of pseudo revolution, because we have in one special case a body of revolution and in another case even a super sphere. These bodies have lines at the boundary, where all points have curvature zero. We consider the influence of these points to the lattice rest in the asymptotic representation of the number of lattice points.

Keywords: convex bodies, lattice points, points with curvature zero

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