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Alexander Koldobsky* (koldobsk@math.missouri.edu), Department of Mathematics,
University of Missouri, Columbia, MO 65211. *On the road between intersection bodies and polar
projection bodies.*

Suppose that we start with the Euclidean ball and are allowed to construct new bodies using three operations: linear transformations, p -addition and closure in the radial metric. What convex bodies can we get by this procedure? It appears that for $p=-1$ we get all intersection bodies (Goodey-Weil), and for $p=1$ all polar projection bodies. We study the geometric structure of intermediate classes of bodies ($-1 < p < 1$). (Received August 10, 2005)