

MIXED VOLUMES AND MIXED AREA MEASURES OF BODIES OF REVOLUTION

Georg C. Hofstätter

TU Wien

(Joint work with L. Brauner and O. Ortega-Moreno)

Sometimes, two mixed volume functionals with different reference bodies are in fact equal. For reference bodies that are rotation symmetric around an axis, we determine when this is the case, using mixed spherical projections and tools from valuation theory. As an application, for convex bodies of revolution, we provide a complete solution to Christoffel–Minkowski type problems of intermediate degrees.