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Franz Schuster* (fschuster@osiris.tuwien.ac.at) and **Rolf Schneider**. *Valuations, Multiplier Transformations and Projection Bodies*.

We discuss continuous mappings from the space of convex bodies in Euclidean space \mathbb{R}^n into itself that are translation invariant valuations with respect to Minkowski addition and intertwine rotations. We present a recent result which shows that the projection body operator, which associates with every convex body its projection body, is the only non-trivial such valuation that maps the set of polytopes in \mathbb{R}^n into itself. (Received February 12, 2007)