

Summer School 2026

Topics in Banach Space Theory

A group action approach to the Daugavet property

Name	Tomáš Raunig
University	Charles University
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Abstract

We introduce a group-action approach to the Daugavet property for Banach spaces endowed with an action by linear isometries. This leads to a unified framework which contains both the classical Daugavet property and the alternative Daugavet property as special cases. Within this setting, many standard characterizations and results for these two properties admit common formulations, allowing them to be proved simultaneously. We discuss how this perspective recovers known results, including those concerning the Radon–Nikodým property, and also highlights phenomena that are specific to the group-action setting. Finally, we present conditions under which the group version of the Daugavet property forces behaviour resembling that of the classical Daugavet property.