

Cerdà, Joan

Lorentz capacity spaces. (English) [Zbl 1141.46313](#)

De Carli, Laura (ed.) et al., Interpolation theory and applications. A conference in honor of Michael Cwikel on the occasion of his 59th birthday, March 29–31, 2006 and AMS special session on interpolation theory and applications, AMS sectional meeting, Miami, FL, USA, April 1–2, 2006. Providence, RI: American Mathematical Society (AMS) (ISBN 978-0-8218-4207-2/pbk). Contemporary Mathematics 445, 45-59 (2007).

Summary: The aim of this note is to show that many of the basic properties of classical Lorentz spaces still hold for the Lorentz spaces $\Lambda^{p,q}(C)$ associated to a capacity C , including real interpolation results, and to prove that under suitable conditions they appear as interpolation spaces of two extremal ones, $\Lambda(C)$ and $M(C)$, with $L^\infty(C)$, as in the case of rearrangement invariant spaces.

For the entire collection see [\[Zbl 1126.00014\]](#).

MSC:

- [46E30](#) Spaces of measurable functions (L^p -spaces, Orlicz spaces, Köthe function spaces, Lorentz spaces, rearrangement invariant spaces, ideal spaces, etc.)
- [46B70](#) Interpolation between normed linear spaces
- [46M35](#) Abstract interpolation of topological vector spaces
- [28A12](#) Contents, measures, outer measures, capacities

Cited in 1 Review Cited in 3 Documents

Keywords:

capacity; Lorentz spaces; interpolation