

On abstract Cesàro spaces

Karol Leśnik

Poznań University of Technology, Poland
klesnik@vp.pl

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We will discuss some recent developments on abstract Cesàro spaces, which generalizes Cesàro spaces Ces_p and ces_p . In particular, duality of abstract Cesàro spaces will be presented in details, as well as their connections with down spaces. We shall look on those spaces also from the point of view of optimal range and optimal domain of Cesàro operator. Finally, results on interpolation of Cesàro spaces will be also presented. As we will see, the proposed - very general point of view allows to grasp and exhibit the nature of the problem while proposed methods seems to simplify already known results even for Ces_p spaces. We shall also point out the big difference between Cesàro spaces on $[0, \infty)$ and on $[0, 1]$.