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Orlicz lattices with modular topology. I. (English) Zbl 0679.46021
Commentat. Math. Univ. Carol. 30, No. 2, 261-270 (1989).

For a given Riesz space X and a modular ρ , the author has considered Orlicz lattices (X, ρ) with a modular topology $\hat{\tau}_\rho$. The main results are theorems which contain properties of $\hat{\tau}_\rho$ and linear functionals f on X (Theorems 2.1-2.6) and theorems on $\hat{\tau}_\rho$ and f in case when X is an ideal of the set of all real valued measurable and finite a.e. functions (Theorems 3.1 and 3.2).

The last part of the paper contains very interesting examples of Orlicz lattices, with modular topology and moreover remarks on (L^∞, ρ_∞) , ρ_∞ and mixed topology $\gamma(\tau_\infty, \tau_0/L^\infty)$. The properties: σ -Lebesgue, σ -Fatou and σ -Levi are very important in that theory.

Reviewer: [A. Waszak](#)

MSC:

- 46E30** Spaces of measurable functions (L^p -spaces, Orlicz spaces, Köthe function spaces, Lorentz spaces, rearrangement invariant spaces, ideal spaces, etc.)
- 46A40** Ordered topological linear spaces, vector lattices

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Keywords:

[Riesz space](#); [modular](#); [Orlicz lattices](#); [modular topology](#); [mixed topology](#); [\$\sigma\$ -Lebesgue](#); [\$\sigma\$ -Fatou](#); [\$\sigma\$ -Levi](#)

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