

Musielak-Orlicz spaces - tool for nonlinear partial differential equations

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Our goal will be to give (rather short) presentation of the theory of anisotropic Musielak-Orlicz spaces as a tool in the theory of nonlinear partial differential equations - abstract ones and those coming from theory of non-Newtonian fluids. I will try to emphasize how this tool can help to generalize growth conditions for nonlinear terms in the equations and where some essential difficulties show up when working in this framework.