Elliptic and parabolic PDE's with variable exponent
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Abstract

I intend to present an overview on theory of modern nonlinear partial differential equations with variable exponent. Variable exponent is an example of so-called nonstandard structural conditions. I'll deal with both elliptic and parabolic case. I intend to deal with both existence and regularity.

If needed, I'll present fundamentals of variable exponent Lebesgue and Sobolev spaces. The talk matter is joint work with Petteri Harjulehto, Peter Hästö, and Út Văn Lê.