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*The Effects of Dissymmetrical Nonlinearities on the Palais-Smale Condition for Elliptic Systems*

Palais-Smale and Palais-Smale-type conditions have been essential in the development of critical point theory on Banach and Hilbert spaces. In this talk, we will show, under a minimum number of assumptions, the impact of dissymmetrical nonlinearities on the fulfillment of the Palais-Smale condition by functionals whose critical points correspond to weak solutions of elliptic systems. Both cooperative and non-cooperative cases will be studied and applications will be discussed. This is joint work with Dr. Batkam.