Deformation Argument under PSP Condition and Applications

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In this talk we introduce a new deformation argument, in which C^0-group action and a new type of Palais-Smale condition PSP play important roles. It works well in some situations where it is difficult to check the standard Palais-Smale condition. In particular it can be applied to Berestycki-Lions problem without introducing constraint problems. We also present new applications to nonlinear Schrödinger equations and nonlinear Choquard problems.

This talk is based on joint works with Silvia Cingolani, Marco Gallo, Jun Hirata and Norihisa Ikoma.