

PRESCRIBED NORM SOLUTIONS OF SCHRÖDINGER EQUATIONS WITH MIXED POWER NONLINEARITIES

LOUIS JEANJEAN

In this talk, I will present some recent results concerning the existence of prescribed norm solutions in problems where the associated nonlinearity is the sum of two powers, one which is mass-subcritical and one mass-supercritical. This leads to consider a constrained variational problem presenting a so-called convex-concave geometry. The issues of existence, multiplicity and orbital stability of solutions will be addressed with a special emphasize on the cases where the mass-supercritical power is Sobolev critical.

The content of this talk is based on some jointed work with J. Jendrej (Paris) T. T. Le (Besançon) and N. Visciglia (Pisa).

UNIVERSITY OF BOURGOGNE,
FRANCHE-COMTÉ, FRANCE