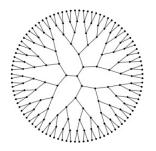ID de Contribution: **13**   Type: **Non spécifié**

Existence of infinitely many normalized solutions for mass-supercritical nonlinear Schrödinger equations on noncompact metric graph.

jeudi 11 janvier 2024 14:20 (45 minutes)

This talk builds on the one of L. Jeanjean. In the mass-supercritical case we consider nonlinear Schrödinger equations on a noncompact metric graph with a localized nonlinearity. We show, for any prescribed L^2 norm, the existence of infinitely many solutions having this norm.

The usual procedure to obtain one solution is to prove that the associated energy functional possesses, on the constraint, what is known as a mountain pass geometry. We present a generalisation of this approach which permits to obtain infinitely many distinct solutions. Among the new challenges, we find the difficulties of having to handle functions which now may be sign-changing and making sure that the solutions obtained are indeed distinct.

This talk is based on a joint work with D. Galant (Mons et Valenciennes), L. Jeanjean (Besançon) et C. Troestler (Mons).

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