WEAKLY COUPLED NONLINEAR SCHRÖDINGER SYSTEMS: THE SATURATION EFFECT.

LILIANE DE ALMEIDA MAIA[*], EUGENIO MONTEFUSCO[†] & BENEDETTA PELLACCI[‡]

We will present results on the existence of solutions for a class of saturable weakly coupled Schrödinger system. In most of the cases we show that least energy solutions have necessarily one trivial component. In addition, sufficient conditions for the existence of a solution with both positive components are found.

References

[1] L.A. MAIA, E. MONTEFUSCO, B. PELLACCI, Weakly coupled nonlinear Schrödinger systems: the saturation effect, *Preprint.*

[*]Departamento de Matemática , UnB, Braslia, Brazil, lilimaia@unb.br
[†]Dipartimento di Matematica, *Sapienza* Università di Roma , Roma, Italy, montefusco@mat.uniroma1.it
[‡]Dipartimento di Scienze Applicate, Università degli Studi di Napoli *Parthenope*, Napoli, Italy, pellacci@uniparthenope.it