## Multiplicity results for Hamiltonian systems with Neumann-type boundary conditions

Natnael Gezahegn Mamo

A joint work with

Alessandro Fonda, Franco Obersnel, Andrea Sfecci

We prove some multiplicity results for Neumann-type boundary value problems associated with a Hamiltonian system. Such a system can be seen as the weak coupling of two systems, the first of which has some periodicity properties in the Hamiltonian function, the second one presenting the existence of a well-ordered pair of lower/upper solutions.

## References

- [1] A. Fonda and R. Ortega, A two-point boundary value problem associated with Hamiltonian systems on a cylinder, Rend. Circ. Mat. Palermo 72 (2023), 3931–3947.
- [2] A. Szulkin, A relative category and applications to critical point theory for strongly indefinite functionals, Nonlinear Anal. 15 (1990), 725–739.

A. Fonda, N.G. Mamo, F. Obersnel and A. SfecciDepartment of Mathematics, Informatics and GeoscienceUniversity of TriesteP.le Europa 1, 34127 Trieste, Italy

e-mail: a.fonda@units.it, natnaelgezahegn.mamo@phd.units.it, obersnel@units.it, asfecci@units.it