

# Hamiltonian systems on polyhedra

P. Duarte, CMAF/DM-FCUL

June 11, 2008

## Abstract

We describe a class of Hamiltonian systems on simple polyhedra, which includes several models from game dynamics (e.g., conservative Lotka-Volterra systems). A technique to detect complex dynamical behaviour along the polyhedron edges is explained.

**Keywords:** Hamiltonian system; Lotka-Volterra system;

## References

- [1] P. Duarte, Dynamics along the edges of simple polyhedrons Preprint (2006).
- [2] P. Duarte, R.L. Fernandes, W. Oliva, Dynamics on the attractor of Lotka-Volterra equations, pp 143-189, Journal of Differential Equations 149 (1998).