



# Seminário de Sistemas Dinâmicos da UFF

---

## MARKOV CHAINS AND CONVERGENCE OF SPHERICAL AVERAGES FOR A FREE GROUP ACTION

**Olga Romaskevich**

École Normale Supérieure de Lyon

**Data:** 13 de maio - Sexta-feira

**Hora:** 16h.

**Local:** Sala 407, Bloco H, Campus do Gragoatá.

### Resumo

We consider a measure preserving free group action on a probability space. We endow the set of generators (and their inverses) with a generalized Markov chain and establish the mean convergence of resulting spherical averages in this case under mild nondegeneracy assumptions on the stochastic matrix defining our Markov chain. This convergence was previously known only for symmetric Markov chains, while the conditions ensuring convergence in our paper are inequalities rather than equalities, so mean convergence of spherical averages is established for a much larger class of Markov chains.