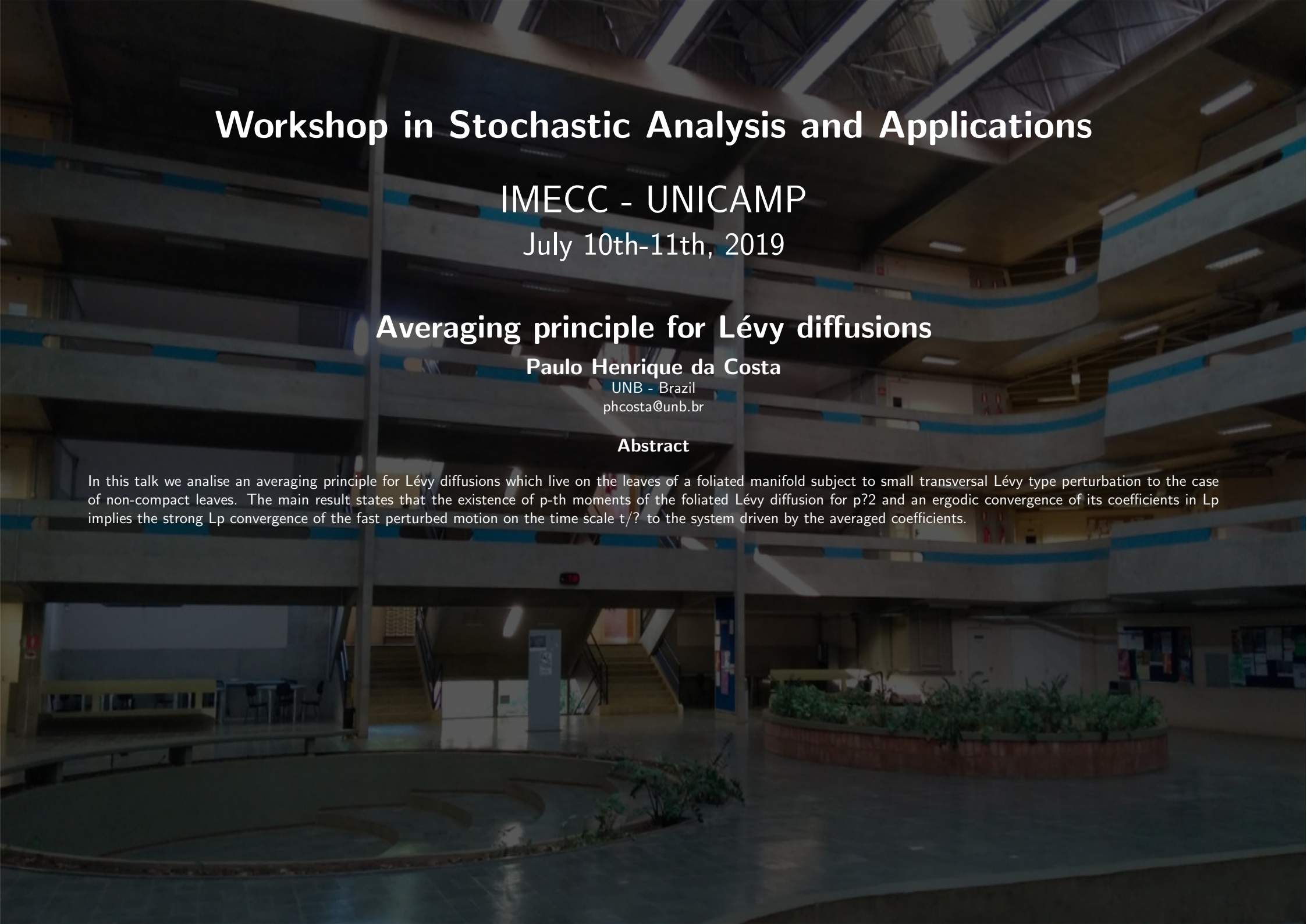

Workshop in Stochastic Analysis and Applications

IMECC - UNICAMP

July 10th-11th, 2019

Averaging principle for Lévy diffusions

Paulo Henrique da Costa
UNB - Brazil
phcosta@unb.br

Abstract

In this talk we analise an averaging principle for Lévy diffusions which live on the leaves of a foliated manifold subject to small transversal Lévy type perturbation to the case of non-compact leaves. The main result states that the existence of p-th moments of the foliated Lévy diffusion for p?2 and an ergodic convergence of its coefficients in Lp implies the strong Lp convergence of the fast perturbed motion on the time scale t/? to the system driven by the averaged coefficients.