



CENTRO DE  
**MATEMÁTICA**  
UNIVERSIDADE DO PORTO

GEOMETRY AND TOPOLOGY SEMINAR

# Zero velocity Lagrangians in the moduli space of Higgs bundles

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**Abstract.** Lagrangians of the moduli space of Higgs bundles are a fundamental piece of its study under the lens of mirror symmetry. We propose a new class of Lagrangians defined via a "zero velocity condition" imposed on the natural action of the non-zero complex numbers on the moduli space, motivated by a certain "infinitesimal conormal principle". After describing their construction, we prove a formula for the number of intersection points of this Lagrangian with the generic fiber of the Hitchin map, with the goal of determining its mirror hyperholomorphic bundle. This is joint work with Peter Gothen and André Oliveira.

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11H00

Room: 1.09



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