Master 2: *International Centre for Fundamental Physics*

INTERNSHIP   PROPOSAL

(One page maximum)

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Thesis possibility after internship: YES
Funding already obtained for a PhD: NO   If   YES, which type of funding:

Title

Summary (half a page maximum)

This stage is meant for a continuation of a Phd project.
There are many open questions that arise from the description of critical statistical models by conformal field theories. One is the definition of the Liouville path integral for certain values of its parameters. The Phd candidate will joint a project started one year ago in collaboration with Xiangyu Cao (ENS) which is based on the Lefshetz-Pham thimble theory. Another question is the study of systems with long-range disorder, and in particular the implementation of a Renormalization Group approach to explain recent numerical evidences obtained in collaboration with Marco Picco (LPTHE) and Francesco Chippari (LPTHE). The stage will be then done as an introduction into these problems and he techniques required.

Please, indicate which speciality(ies) seem(s) to be more adapted to the subject:

Condensed Matter Physics: NO   Soft Matter and Biological Physics: NO
Quantum Physics: YES   Theoretical Physics: YES