

Categorical tools

M a s a r y k U n i v e r s i t y
S p r i n g 2 0 1 7

Dear students,
we are a postdoc (Fosco) and a PhD student (Ivan) here in MU; we are planning to start a series of lectures on two topics we love:

- **Accessible and presentable** categories;
- **Homotopical algebra** and abstract homotopy theory.

If you wanna be fashionable, and know some cutting-edge Mathematics, drop us a line!

You should be familiar with some rudiments of category theory, but we are trying to design the course in order to keep its prerequisites to a reasonable minimum. Of course, everyone willing to collaborate is welcome.

With the exception of the first lecture, we meet every Tuesday at 4pm in room XYZ.

Other useful informations:

📅 : Here's a tentative schedule of the first meetings:

– **6th April:**

1. Ivan: Generalities on locally presentable categories.
2. Fosco: Preliminaries and generalities on model categories.

– **11th April:**

1. Ivan: Representation theorem.
2. Fosco: A model structure on simplicial sets and spaces: a Quillen equivalence.

– **18th April:**

1. Ivan: Properties of Locally Presentable Categories.
2. Fosco: Homotopy Limits.

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🐙 : There's a github repo where we host material and relevant infos:

<https://github.com/tetrapharmakon/progetti-MUNI>

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Fosco and Ivan,
Brno, March 29, 2017