Universität Regensburg
Fakultät für Mathematik
Prof. Dr. Denis-Charles Cisinski/Dr. Adeel Khan

SS 2019

Seminar motivic sheaves

This semester, we will follow the paper *Exodromy*, by Clark Barwick, Saul Glasman and Peter Haine, available at https://arxiv.org/abs/1807.03281. We might have to use material from Lurie's HTT and HA, available at url http://www.math.harvard.edu/~lurie/papers/HTT.pdf and at url http://www.math.harvard.edu/~lurie/papers/HA.pdf, respectively.

Talk 1 (25.04.19)**. Introduction.**

Talk 2 (02.05.19)**. Stratified spaces.** Here we will simply follow §2.1–2.5 and §3.1–3.2 of *Exodromy*.

Talk 3 (09.05.19)**. Spacial décollage.** We will follow §4.1–4.3 of *Exodromy*. It might be useful to recall some facts about the Rezk model structure out of Joyal and Tierney's paper *Quasi-categories vs Segal spaces*, available at https://arxiv.org/abs/math/0607820

Talk 4 (16.05.19)**. Bounded coherent ∞-topoi.** We will follow §5.2–5.4 as well as §5.6–5.8 of *Exodromy*.

Talk 5 (23.05.19)**. Shape Theory.** We will follow §5.10–5.12 of *Exodromy*.

Talk 6 (06.06.19)**. Oriented fibre products of ∞-topoi.** We will follow §6.1, §6.2, §6.4 and §6.5 of *Exodromy*.

Talk 7 (13.06.19)**. Generating ∞-sites for oriented fibre products.** We will follow §6.6 and §6.7 of *Exodromy*.

Talk 8 (27.06.19)**. Local ∞-topoi & localisations** We will follow Section 7 of *Exodromy*.

Talk 9 (04.07.19)**. Beck–Chevalley conditions.** We will follow §8.1–8.6 of *Exodromy* (§8.5 may be skipped if there is not enough time).

Talk 10 (11.07.19)**. Gluing squares.** Introduce oriented pushouts following §6.3 of *Exodromy*, then discuss gluing squares, following §8.7 of *loc. cit.*

Talk 11 (18.07.19)**. Stratified higher topoi.** We will follow §9.3 and state Theorem 9.4.3 of *Exodromy*. We will then follow §9.7

Talk 12 (25.07.19)**. Spectral higher topoi.** State Lemma 10.2.7 and follow §10.3–10.4, as well as §11.1. In particular, state and explain Theorem 11.1.7.