

Vienna Doctoral School Minicourse

May 16-19, 2017

Title: *A tale of two phenomena: Fixed Point Property and Minimal Dynamical Systems.*

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Schedule

Tue May 16 (10.00 - 11.00 a.m.):

- A. Introduction to minimal systems and minimal spaces: minimal Cantor systems, irrational circle rotations, minimal sets.
- B. Minimality vs. local versions of Banach Fixed Point Theorem.

Wed May 17 (10.00 - 11.00 a.m.):

- A. Minimality in Cartesian products.

Thu May 18 (10.00 - 11.00 a.m.):

- A. Introduction to Fixed Point Theory.
- B. Fixed Point Theorems for Planar Homeomorphisms Part 1.

Fri May 19 (10.00 - 11.00 a.m.):

- A. Fixed Point Theorems for Planar Homeomorphisms Part 2 and beyond.

References

1. Boronski, J.P., *Fixed points and periodic points of orientation-reversing planar homeomorphisms*, **Proceedings of the American Mathematical Society** 138 (2010), 3717-3722
2. Boronski J.P., *On a generalization of the Cartwright-Littlewood fixed point theorem for planar homeomorphisms*, **Ergodic Theory and Dynamical Systems**, DOI: 10.1017/etds.2015.129
3. Boronski J.P.; Kupka J.; Oprocha P., *Edrei's Conjecture revisited*, arXiv:1703.01816 [math.DS]
4. Boronski J.P.; Clark A.; Oprocha P., *A compact minimal space Y such that its square $Y \times Y$ is not minimal*, arXiv:1612.09179 [math.DS]