

Lecture notes will be provided. However if you wish, here is some recommended reading you may find useful to accompany the course:

Flows:

- Kuznetsov, Y. & Rinaldi, S. & Gragnani (2003) A. Codimension one bifurcations in planar Filippov systems, *Int.J.Bif.Chaos* 13, 2157-2188
- Kowalczyk, P. & Piiroinen, P.T. (2008) Two-parameter sliding bifurcations of periodic solutions in a dry-friction oscillator, *Physica D* 237:8 1053-73
- Utkin, V.I. (1977) Variable structure systems with sliding modes, *IEEE Trans. Automatic Contr.* 22, 212-222; or any of the recent books by Utkin (& co-authors) on Sliding Modes
- Jeffrey, M.R. (2014) Hidden dynamics in models of discontinuity and switching, *Physica D* 273-4, 34-45
- Jeffrey, M.R. (2014) Dynamics at a switching intersection: hierarchy, isonomy, and multiple-sliding, *SIADS* 13:3, 1082-1105

Maps:

- Gardini, L. (1992) Some global bifurcations of two-dimensional endomorphisms by use of critical lines, *Nonlinear Anal.* 18, 361--399.
- Nusse, H.E. & Yorke, J.A. (1992) Border-collision bifurcation including 'period two to period three' for piecewise-smooth systems, *Physica D* 57, 39--57.
- Banerjee, S. & Grebogi, C. (1999) Border Collision Bifurcations in Two-Dimensional Piecewise Smooth Maps, *Phys. Rev. E* 59, 4052--4061.
- Simpson, D.J.W. (2014) Sequences of Periodic Solutions and Infinitely Many Coexisting Attractors in the Border-Collision Normal Form, *Int. J. Bifurcation Chaos* 24:1430018.