AN INTRODUCTION TO LOCAL DYNAMICS IN SEVERAL COMPLEX VARIABLES

MARCO ABATE

In this short series of lectures I shall present some of the main features of local discrete dynamics in several complex variables. More precisely, I plan to discuss:

- normal form theory, both formal and holomorphic (Poincare'-Dulac theorem, resonances, linearization problems, Bryuno theorem);
- structure of the stable set for parabolic germs (existence of parabolic curves, Hakim's theory, index theory)
- the structure of non invertible germs (rigidification, action on the valuative tree, classification in dimension 2)