DIFFERENTIAL OPERATORS AS FUNCTIONS

CARLOS TOMEI *

Nonlinear objects are complicated, but the insight on certain classes of differential equations provided by geometric arguments, sometimes visual, sometimes of a computational nature, is surprising (think of the Ambrosetti-Prodi theorem). There is more to learn: the intrinsic difficulty of the objects being studied. We present examples among functions in finite dimensional spaces, ordinary and partial differential operators and their discretizations, and more.

Joint work with H. Bueno (UFMG), D.Burghelea (Ohio U.), J. Cal Neto (UNIRIO), M.Calanchi (U. Milano), O. Kaminski (UFES), I.Malta (PUC-Rio), N.Saldanha (PUC-Rio), B.Sirakov (PUC-Rio), E. Teles (CEFET), A.Zaccur (PUC-Rio).

^{*}Departamento de Matemática, PUC-Rio email: carlos.tomei@gmail.com