

LONG-LASTING RESEARCH INTERESTS

GENERAL THEME: NONLINEAR SYSTEMS

- *Feedback control design for strongly nonlinear system, i.e. systems that do not lend themselves to the application of linear control methods;*
- *Differential geometric control theory in application to stabilization of nonlinear systems;*
- *Model reduction of complex nonlinear systems, Hamiltonian systems and symplectic integration;*
- *Switched and hybrid control of nonlinear systems;*
- *Nonlinear control of robotic systems;*
- *Identification and control of time-delayed systems;*
- *Nonlinear control and identification in biological systems.*

PREVIOUS RESEARCH INTERESTS

- *Model Predictive Control of Nonlinear Systems;*
- *Multi-sensor multi-target tracking and data fusion methods;*
- *Generalized likelihood ratio detection and guidance;*
- *Robust and switched control of linear systems.*