



# Mohamed Amin Ben Sassi

Ph.D. in Applied Mathematics  
Assistant Professor

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## EDUCATION

- 2011 Ph.D. in Applied Mathematics. Grenoble University. France
- 2009 Master in Pure Mathematics. Pierre et Marie Curie University. France
- 2008 Bachelor in Mathematics. Science University of Tunis. Tunisia

## RESEARCH INTERESTS

Control theory, Hybrid systems, Optimisation and Formal methods.

## EMPLOYMENT EXPERIENCE

### ACADEMIC:

- 01/2017 Present Assistant Professor. MedTech University. Tunis. Tunisia
- 01/2017 12/2017 Postdoctoral Researcher. University of Technology. Mississauga. Canada
- 01/2014 02/2016 Postdoctoral Researcher and Instructor. Colorado University. Boulder. USA
- 10/2010 02/2010 Teaching Assistant. Faculty of Sciences. University of Tunis. Tunisia

## COURSES TAUGHT

From	To	Course Title	Level*
09/2010	06/2011	Elementary Analysis and Differential Equations	U
09/2011	03/2012	Linear Algebra	U
09/2012	08/2013	Numerical Analysis	U
Fall 2014		Verification of Cyber physical systems	G
Fall 2015		Linear Programming	G

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## INTELLECTUAL CONTRIBUTIONS

### Papers in refereed journals

#### Published

Mohamed Amin Ben Sassi and Antoine Girard, **Computation of polytopic invariants for polynomial dynamical systems using linear programming.** *Automatica*, 48(12):3114-3121, 2012

Mohamed Amin Ben Sassi and Antoine Girard, **Controller synthesis for robust invariance of polynomial dynamical systems using linear programming.** *Systems and Control Letters*, 61(4):506-512, 2012.

Mohamed Amin Ben Sassi, Sriram Sankaranarayanan, Xin Chen, and Erika Abraham, **Linear Relaxations of Polynomial Positivity for Polynomial Lyapunov Function Synthesis,** In IMA Journal of Control and Information.

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#### Communications in refereed conferences

##### International

Mohamed Amin Ben Sassi, Romain Testylier, Thao Dang and Antoine Girard, **Reachability analysis of polynomial systems using linear programming relaxations.** *Automated Technology for Verification and Analysis, Thiruvandrum, India, 2012.*

Mohamed Amin Ben Sassi and Antoine Girard, **Control of polynomial dynamical systems on rectangles.** *European Control Conference, Zurich, Switzerland, 2013.*

Mohamed Amin Ben Sassi, Antoine Girard, and Sriram Sankaranarayanan, **Iterative Computation of Polyhedral Invariants Sets for Polynomial Dynamical Systems** In IEEE Conference on Decision and Control (CDC), Los Angeles, USA, 2014.

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#### Papers under review

Mohamed Amin Ben Sassi, Ezio Bartocci, and Sriram Sankaranarayanan, **Linear Programming-based iterative approach to Stabilizing Polynomial Dynamical Systems** In IFAC Conference, Toulouse, France, 2017.

