MAGRON Victor (ORCID: 0000-0003-1147-3738)

Nationality: French, web site: https://homepages.laas.fr/vmagron

- **EDUCATION**

2021	HDR, Université Paul Sabatier, Toulouse, France
2013	PhD, Ecole Polytechnique Palaiseau, France
2010	MsC (Engineer): Ecole Centrale Paris, France

- **CURRENT POSITION**

  Chargé de recherche, CNRS, LAAS, Toulouse, France.

- **INTERNATIONAL RECOGNITION (honors, prizes)**

  - CNRS Bronze medal, 2023.
  - Mathematical Programming Meritorious Service Award, 2023.
  - Plenary talk: Sparse polynomial optimization: theory and practice International Symposium on Operations Research in Slovenia, Bled, Slovenia, 2023.
  - Invited course: Exploiting sparsity in polynomial optimization, JNCF, CIRM Marseille, 2023.
  - Invited lecture: Trace polynomial optimization with applications in quantum information, CWI workshop on "Semidefinite and polynomial optimization Science Park", Amsterdam, 2022.
  - Invited lecture: The Moment-SOS hierarchy for polynomial optimization: theory and practice by B. Merino, U. of Murcia, 2022.
  - Feature tutorial lecture: Conic programming for certified polynomial optimization, Oberwolfach workshop "Conic Linear Optimization for Computer-Assisted Proofs", 2022.
  - Invited mini-course: Sparse polynomial optimization POEMA Learning Week 2, Le Village, Toulouse, 2022.
  - Polynomial, Moment and SDP data, General online Julia training POEMA Workshop, 2021.
  - Selected poster's lecture: Polynomial Optimization for Bounding Lipschitz Constants of Deep Networks, Intersections between Control, Learning and Optimization IPAM, Los Angeles, US, 2020.
  - Invited mini-course on Semidefinite Programming and the Moment/Sums-of-squares Hierarchy, at TU Cheminitz Systems and Control Seminar, Germany, 2019.
  - Best Software Demo Award RealCertify: a Maple package for certifying non-negativity, ISSAC conference, ACM, New York, USA, 2018.

- **Best Paper Award Certified Roundoff Error Bounds using Bernstein Expansions and Sparse Krivine-Stengle Representations, 24th IEEE Symposium on Computer Arithmetic, 2017.**

- **SUPERVISION:** 5 PhD students (1 on-going), 9 post-Docs (3 on-going).

- **SCIENTIFIC PRODUCTION:** https://homepages.laas.fr/vmagron/publi.html.

- **5 MOST RELEVANT PAPERS (10 last years), Google Scholar Id: uBINkvoAAAAJ, h index: 18**

  1. Magron, V. & Wang, J. Sparse polynomial optimization: theory and practice (2023), Series on Optimization and Its Applications, World Scientific Press. https://hal.laas.fr/hal-03760501 DOI: 10.1142/q0382
  2. Wang, J., Magron, V., & Lasserre, J. B. (2021). TSSOS: A moment-SOS hierarchy that exploits term sparsity. SIAM Journal on optimization, 31(1), 30-58. https://hal.laas.fr/hal-02448389 DOI: 10.1137/19M1307871
  3. Wang, J., Magron, V., & Lasserre, J. B. (2022). Certifying global optimality of AC-OPF solutions via sparse polynomial optimization. Electric Power Systems Research, 213. https://hal.laas.fr/hal-03351160 DOI: 10.1016/j.epsr.2022.108683
  4. Chen, T., Lasserre, J. B., Magron, V., & Pauwels, E. (2021). Semialgebraic representation of monotone deep equilibrium models and applications to certification. Advances in Neural Information Processing Systems, 34, 27146-27159. https://hal.laas.fr/hal-03265346
  5. Chen, T., Lasserre, J. B., Magron, V., & Pauwels, E. (2020). Semialgebraic optimization for lipschitz constants of relu networks. Advances in Neural Information Processing Systems, 33, 19189-19200. https://arxiv.org/abs/2002.03657

- **INSTITUTIONAL RESPONSABILITIES**

  - Since 2022: Head of the Polynomial OPtimization (POP) team, CNRS LAAS, France
  - Since 2021: participation in 5 grant proposal/conference program committees, reviewer of 4 PhD theses

- **COLLABORATIONS:** Department of Mathematics, University of Ljubljana, Slovenia; ICFO, Barcelona, Spain; Department of Electrical Engineering, Kyushu University, Japan; Department of Mathematics, National University of Singapore; School of Computer Science and Engineering, Nanyang Technological University, Singapore; Department of Automatic Control, LTH, Lund, Sweden; Réseau de Transport d'Electricité, Paris, France; Computer science lab Paris 6, Sorbonne Université, France; Automatic Control & Systems Dynamics Laboratory, Technical University of Chemnitz, Germany; Technical University of Berlin, Germany; University of Konstanz, Germany

- **TEACHING ACTIVITIES (current or planned): lectures on sparse polynomial optimization in theory and practice.**