GOULART Henrique (ORCID: 0000-0003-1812-6229)

Nationality: Brazilian, web site: https://www.irit.fr/~Henrique.Goulart/

- **CURRENT POSITION**

  Maître de Conférences, Toulouse INP, IRIT, Toulouse, France.

- **EDUCATION**

2016	PhD, Université Côte d'Azur, Nice, France
2012	MSc, Universidade de São Paulo, Brazil
2006	Bsc, Universidade Federal de Sergipe, Brazil

- **INTERNATIONAL RECOGNITION (invited talks):**
  - Invited talk at the "Random tensors at CIRM" conference, titled "A random matrix perspective on random tensors", Marseille, Mars 2022.
  - Invited talk at the mini-symposium "Recent Advances in Matrix and Tensor Factorizations: Algorithms and Theory" hosted by the SIAM Conference on Applied Linear Algebra, titled "A random matrix perspective on random spiked tensors", Online, May 2021.
  - Invited talk at the Seminar on Random Tensors of the Texas A&M Unviversity, titled "A random matrix perspective on spiked tensor models", Online, February 2021.
  - Invited talk at the Workshop "Structured Matrix Days", titled "On minimal ranks and the approximate block-term tensor decomposition", Lyon, May 2018.
- **SUPERVISION:** 1 PhD student (on-going), 1 post-doc.
- **SCIENTIFIC PRODUCTION: full list available at** https://www.irit.fr/~Henrique.Goulart/publications/

  14 journal papers, 13 conference papers, 1 book chapter
- **5 MOST RELEVANT PAPERS (10 last years), Google Scholar Id: IWj6KeoAAAAJ, h index: 9**

1. J. H. de M. Goulart, R. Couillet and P. Comon. A Random Matrix Perspective on Random Tensors. Journal of Machine Learning Research, 23(264):1–36, Sep 2022. https://www.jmlr.org/papers/v23/21-1038.html
2. J. H. de M. Goulart and P. Comon. On the minimal ranks of matrix pencils and the existence of a best approximate block-term tensor decomposition. Linear Algebra and Its Applications, 561:161–186, 2019. https://hal.archives-ouvertes.fr/hal-01909603v1
3. J. H. de M. Goulart, P. M. R. de Oliveira, R. C. Farias, V. Zarzoso and P. Comon. Alternating group lasso for block-term tensor decomposition with application to ECG source separation. IEEE Transactions on Signal Processing, 68(1):2682–2696, Dec 2020. https://hal.archives-ouvertes.fr/hal-01899469.
4. J. H. de M. Goulart and G. Favier. Low-rank tensor recovery using sequentially optimal modal projections in iterative hard thresholding (SeMPIHT). SIAM Journal on Scientific Computing, 39(3):A860–A889, 2017. https://hal.archives-ouvertes.fr/hal-01387529.
5. J. H. de M. Goulart, M. Boizard, R. Boyer, G. Favier, and P. Comon. Tensor CP decomposition with structured factor matrices: Algorithms and performance. IEEE Journal of Selected Topics in Signal Processing, 10(4):757–769, 2016. https://hal-supelec.archives-ouvertes.fr/hal-01246855.

- **PROJECTS:**
  - 2022-2024, PI: "Towards tensor model learning with performance guarantees" funded by LabEx CIMI, 20k€
  - 2022-2025, member: "ActIve Molecular imAGing and unmixINg (IMAGIN)", ANR-21-CE29-0007, 500k€, PI: Cyril Ruckebusch (Univ. de Lille)
  - 2016-2021, member: "New paradigms for latent factor estimation (FACTORY)", ERC Consolidator Grant, 2M€, PI: Cédric Févote (CNRS)
- **REVIEWING ACTIVITIES:** Annals of Probability, SIAM Journal on Matrix Analysis and Applications, SIAM Journal on Imaging Sciences, IEEE Transactions on Signal Processing, IEEE Signal Processing Letters, IEEE Journal of Special Topics in Signal Processing, Elsevier Linear Algebra and Its Applications, Elsevier Applied Mathematics and Computation, Elsevier Applied Mathematical Modeling.
- **COLLABORATIONS:** Technology Innovation Institute (TII) Abu Dhabi (UAE), INRIA Lyon (France), Gipsa-lab (Grenoble, France), University of São Paulo (Brazil), Federal University of Fortaleza (Brazil), I3S (Sophia Antipolis, France)
- **TEACHING ACTIVITIES (current)**: Machine learning, probability, statistics, real and complex analysis and signal processing at the Electronics and Electrical Engineering Department of ENSEEIHT, Toulouse.