# Publications

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## Journal Publications

[1] Henrique Ennes and Raphaël Tinarrage. "LieDetect: Detection of Representation Orbits of Compact Lie Groups From Point Clouds". In: *Foundations of Computational Mathematics* (2025), pp. 1–136. DOI: 10.1007/s10208-025-09728-4.

[2] Raphaël Tinarrage, Henrique Ennes, Lucas Resck, Lucas T Gomes, Jean R Ponciano, and Jorge Poco. "Empirical analysis of binding precedent efficiency in Brazilian Supreme Court via case classification". In: *Artificial Intelligence and Law* (2025), pp. 1–67. DOI: 10.1007/s10506-025-09458-6.

[3] Raphaël Tinarrage, Jean R Ponciano, Claudio DG Linhares, Agma JM Traina, and Jorge Poco. "ZigzagNetVis: Suggesting temporal resolutions for graph visualization using zigzag persistence". In: *IEEE Transactions on Visualization and Computer Graphics* (2025). DOI: 10.1109/TVCG.2025.3528197.

[4] Raphaël Tinarrage. "Recovering the homology of immersed manifolds". In: *Discrete & Computational Geometry* 69.3 (2023), pp. 659–744. DOI: 10.1007/s00454-022-00409-5.

[5] Raphaël Tinarrage. "Computing persistent Stiefel–Whitney classes of line bundles". In: *Journal of Applied and Computational Topology* 6.1 (2022), pp. 65–125. DOI: 10.1007/s41468-021-00080-4.

## Publications in Peer-Reviewed Conference Proceedings

[6] Beatriz Sabdin Chagas, Carla Marcondes Damian, and Raphaël Tinarrage. "O impacto da Súmula Vinculante 26 na diminuição de demanda similar no STF: uma análise quantitativa por modelos de machine learning". Portuguese. In: *Direito Penal, Processo Penal e Criminologia: XI Encontro Internacional do CONPEDI Chile – Santiago*. Florianópolis, Brasil: Conselho Nacional de Pesquisa e Pós-Graduação em Direito (CONPEDI), 2022, pp. 82–103. ISBN: 978-65-5648-559-1. URL: https://site.conpedi.org.br/publicacoes/129by0v5/gg2as8tl/0d71WWx2sWUgr61q.pdf.

[7] Ana Clara Macedo Jaccoud, Pedro Burlini de Oliveira, and Raphaël Tinarrage. "Progressão de regime em crimes hediondos no Supremo Tribunal Federal: uma análise empírica pela Súmula Vinculante 26". Portuguese. In: *Direito Penal, Processo Penal e Criminologia: XI Encontro Internacional do CONPEDI Chile – Santiago*. Florianópolis, Brasil: Conselho Nacional de Pesquisa e Pós-Graduação em Direito (CONPEDI), 2022, pp. 399–418. ISBN: 978-65-5648-569-0. URL: https://site.conpedi.org.br/publicacoes/129by0v5/502849so/6o53sVpwaxV5352U.pdf.

[8] Hirokazu Anai, Frédéric Chazal, Marc Glisse, Yuichi Ike, Hiroya Inakoshi, Raphaël Tinarrage, and Yuhei Umeda. "DTM-Based Filtrations". In: *Topological Data Analysis: the Abel Symposium 2018*. Springer. 2020, pp. 33–66. DOI: 10.1007/978-3-030-43408-3_2.