

List of Publications

Dániel Virosztek

1 Preprints

1. G.P. Gehér, T. Titkos, D. Virosztek, Isometric rigidity of Wasserstein tori and spheres. Preprint, submitted.
Available online: <https://arxiv.org/abs/2203.04054>
2. G.P. Gehér, T. Titkos, D. Virosztek, The isometry group of Wasserstein spaces: the Hilbertian case. Preprint, submitted.
Available online: <https://arxiv.org/abs/2102.02037>
Independent citations: 1
 - (a) J. S. Rodríguez. "Isometric rigidity of compact Wasserstein spaces." arXiv preprint arXiv:2102.08725 (2021).

2 Papers

1. D. Virosztek, The metric property of the quantum Jensen-Shannon divergence. *Adv. Math.* **380** (2021), 107595.
Available online: <https://doi.org/10.1016/j.aim.2021.107595>
Independent citations: 14
 - (a) "Jensen-Shannon divergence." Wikipedia article, https://en.wikipedia.org/wiki/Jensen-Shannon_divergence
 - (b) Osán, T.M., D.G. Bussandri, and P.W. Lamberti. "Quantum metrics based upon classical Jensen-Shannon divergence." *Physica A* **594** (2022), 127001.
 - (c) Megier, N., A. Smirne, S. Campbell, and B. Vacchini. "Correlations, information backflow, and objectivity in a class of pure dephasing models." arXiv preprint arXiv:2201.10573 (2022).
 - (d) Chang, S., M.F.F. Siu, H. Li, and X. Luo. "Evolution pathways of robotic technologies and applications in construction." *Adv. Eng. Inform.* **51** (2022), 101529.
 - (e) Smirne, A., N. Megier, and B. Vacchini. "Holevo skew divergence for the characterization of information backflow." arXiv preprint arXiv:2201.07812 (2022).
 - (f) Sra, S. "Positive definite functions of noncommuting contractions, Hua-Bellman matrices, and a new distance metric." arXiv preprint arXiv:2112.00056 (2021).
 - (g) Minh, H.Q. "Quantum Jensen-Shannon Divergences Between Infinite-Dimensional Positive Definite Operators." In: Nielsen F., Barbaresco F. (eds) Geometric Science of Information. GSI 2021. Lecture Notes in Computer Science, vol 12829. Springer, Cham. https://doi.org/10.1007/978-3-030-80209-7_18
 - (h) Nielsen, F. "On a variational definition for the Jensen-Shannon symmetrization of distances based on the information radius." arXiv preprint arXiv:2102.09728 (2021).
 - (i) Friedland, S., M. Eckstein, S. Cole, and K. Życzkowski. "Quantum Monge-Kantorovich problem and transport distance between density matrices." arXiv preprint arXiv:2102.07787 (2021).
 - (j) Megier, N., A. Smirne, and B. Vacchini. "Entropic bounds on information backflow." *Phys. Rev. Lett.* **127** (2021), 030401.

- (k) Sra, S. "Metrics induced by Jensen-Shannon and related divergences on positive definite matrices." *Linear Algebra Appl.* **616** (2021), 125–138.
 - (l) Lam, N., and P.L. Le. "Quantum divergences with p -power means." *Linear Algebra Appl.* **609** (2021), 289–307.
 - (m) Lam, N., and R. Milley. "Some notes on quantum Hellinger divergences with Heinz means." *Electron. J. Linear Algebra* **36** (2020), 704–722.
 - (n) Pires, D.P., K. Modi, and L.C. Céleri. "Bounding generalized relative entropies: non-asymptotic quantum speed limits." arXiv preprint arXiv:2008.12192 (2020).
2. J. Pitrik, D. Viosztek, A divergence center interpretation of general symmetric Kubo–Ando means, and related weighted multivariate operator means. *Linear Algebra Appl.* **609** (2021), 203–217.
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Independent citations: 3
- (a) Dumitru, R., and J. A. Franco. "Geodesic in-betweenness for means of several matrices." *Linear Algebra Appl.* **636** (2022), 77-92.
 - (b) Dinh, T. H., A. V. Le, C. T. Le, and N. Y. Phan. "The matrix Heinz mean and related divergence." *Hacettepe J. Math. Stat.* (2022), 1-11. DOI: 10.15672/hujms.902879
 - (c) Lam, N., and R. Milley. "Some notes on quantum Hellinger divergences with Heinz means." *Electron. J. Linear Algebra* **36** (2020), 704–722.
3. G.P. Gehér, T. Titkos, D. Viosztek, Isometric study of Wasserstein spaces — the real line. *Trans. Amer. Math. Soc.* **373** (2020), 5855–5883.
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- (a) J. S. Rodríguez. "Isometric rigidity of compact Wasserstein spaces." arXiv preprint arXiv:2102.08725 (2021).
 - (b) J. S. Rodríguez. "Symmetries of curved metric measure spaces." Ph.D. Thesis, Universidad Autónoma de Madrid, 2020. https://www.icmat.es/Thesis/2020/Tesis_Jaime_Santos.pdf
4. J. Pitrik, D. Viosztek, Quantum Hellinger distances revisited. *Lett. Math. Phys.* **110** (2020), 2039–2052.
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 - (f) Bhatia, R., S. Gaubert, and T. Jain. "Correction to: Matrix versions of the Hellinger distance." *Lett. Math. Phys.* **109** (2019), 2779-2781.
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- (b) Rodríguez, J. S. "Isometric rigidity of compact Wasserstein spaces." arXiv preprint arXiv:2102.08725 (2021).
6. G.P. Gehér, T. Titkos, and D. Viosztek, Dirac masses and isometric rigidity, *Kyoto University RIMS Kôkyûroku* **2125** (2019), 34-41.
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7. D. Viosztek, Jointly convex quantum Jensen divergences. *Linear Algebra Appl.* **576** (2019), 67–78.
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