

## Thesis

- [0] V. Musil, **Classical operators of harmonic analysis in Orlicz spaces**, PhD thesis, Charles University, Faculty of Mathematics and Physics, 2018.

## Journal Articles (M)

- [1] V. Musil, **Optimal Orlicz domains in Sobolev embeddings into Marcinkiewicz spaces**, *J. Funct. Anal.* 270.7 (2016), pp. 2653–2690, DOI: [10.1016/j.jfa.2016.01.019](https://doi.org/10.1016/j.jfa.2016.01.019), eprint: <https://arxiv.org/abs/1912.03757>.
- [2] Ö. Bakşı, T. Khan, J. Lang, and V. Musil, **Strict  $s$ -numbers of the Volterra operator**, *Proc. Amer. Math. Soc.* 146.2 (2018), pp. 723–731, DOI: [10.1090/proc/13769](https://doi.org/10.1090/proc/13769), eprint: <https://arxiv.org/abs/1701.01111>.
- [3] A. Cianchi and V. Musil, **Optimal domain spaces in Orlicz-Sobolev embeddings**, *Indiana Univ. Math. J.* 68 (3 2019), pp. 925–966, eprint: <https://arxiv.org/abs/1704.06376>.
- [4] J. Lang and V. Musil, **Strict  $s$ -Numbers of Non-compact Sobolev Embeddings into Continuous Functions**, *Constructive Approximation* 50.2 (Oct. 2019), pp. 271–291, DOI: [10.1007/s00365-018-9448-0](https://doi.org/10.1007/s00365-018-9448-0), eprint: <https://arxiv.org/abs/1709.01404>.
- [5] V. Musil, **Fractional maximal operator in Orlicz spaces**, *J. Math. Anal. Appl.* 474.1 (2019), pp. 94–115, DOI: [10.1016/j.jmaa.2019.01.034](https://doi.org/10.1016/j.jmaa.2019.01.034), eprint: <https://arxiv.org/abs/1805.00763>.
- [6] V. Musil and R. Olhava, **Interpolation theorem for Marcinkiewicz spaces with applications to Lorentz gamma spaces**, *Math. Nachr.* 292.5 (2019), pp. 1106–1121, DOI: [10.1002/mana.201700452](https://doi.org/10.1002/mana.201700452), eprint: <https://arxiv.org/abs/1702.03871>.
- [7] A. Cianchi, V. Musil, and L. Pick, **Moser inequalities in Gauss space**, *Mathematische Annalen* 377.3 (2020), pp. 1265–1312, DOI: [10.1007/s00208-020-01956-z](https://doi.org/10.1007/s00208-020-01956-z), eprint: <https://arxiv.org/abs/1907.12038>.
- [8] A. Cianchi, V. Musil, and L. Pick, **On the Existence of Extremals for Moser-Type Inequalities in Gauss Space**, *International Mathematics Research Notices* 2022.2 (July 2020), rnaa165, pp. 1494–1537, DOI: [10.1093/imrn/rnaa165](https://doi.org/10.1093/imrn/rnaa165), eprint: <https://arxiv.org/abs/2001.02605>.
- [9] D. E. Edmunds, Z. Mihula, V. Musil, and L. Pick, **Boundedness of classical operators on rearrangement-invariant spaces**, *Journal of Functional Analysis* 278.4 (2020), p. 108341, DOI: [10.1016/j.jfa.2019.108341](https://doi.org/10.1016/j.jfa.2019.108341), eprint: <https://arxiv.org/abs/1903.03808>.
- [10] J. Lang, V. Musil, M. Olšák, and L. Pick, **Maximal non-compactness of Sobolev embeddings**, *J. Geom. Anal.* (2020), DOI: [10.1007/s12220-020-00522-y](https://doi.org/10.1007/s12220-020-00522-y), eprint: <https://arxiv.org/abs/2003.11854>.
- [11] A. Cianchi, V. Musil, and L. Pick, **Sharp exponential inequalities for the Ornstein-Uhlenbeck operator**, *Journal of Functional Analysis* 281.11 (2021), p. 109217, DOI: [10.1016/j.jfa.2021.109217](https://doi.org/10.1016/j.jfa.2021.109217).

## Proceedings Papers (CS)

- [12] M. Rolínek, V. Musil, A. Paulus, M. Vlastelica, C. Michaelis, and G. Martius, **Optimizing ranking-based metrics with blackbox differentiation**, *IEEE Conference on Computer Vision and Pattern Recognition*, 2020, DOI: [10.1109/CVPR42600.2020.00764](https://doi.org/10.1109/CVPR42600.2020.00764), eprint: <https://arxiv.org/abs/1912.03500>.
- [13] M. Rolínek, P. Swoboda, D. Zietlow, A. Paulus, V. Musil, and G. Martius, **Deep Graph Matching via Blackbox Differentiation of Combinatorial Solvers**, *European Conference on Computer Vision*, 2020, DOI: [10.1007/978-3-030-58604-1\\_25](https://doi.org/10.1007/978-3-030-58604-1_25), eprint: <https://arxiv.org/abs/2003.11657>.
- [14] M. Vlastelica, A. Paulus, V. Musil, G. Martius, and M. Rolínek, **Differentiation of blackbox combinatorial solvers**, *International Conference on Learning Representations*, 2020, eprint: <https://arxiv.org/abs/1912.02175>.
- [15] D. Klaška, A. Kučera, V. Musil, and V. Řehák, **Regstar: Efficient Strategy Synthesis for Adversarial Patrolling Games**, *Conference on Uncertainty in Artificial Intelligence*, 2021, eprint: <https://arxiv.org/abs/2108.08950>.
- [16] A. Paulus, M. Rolínek, V. Musil, A. B., and G. Martius, **CombOptNet: Fit the Right NP-Hard Problem by Learning Integer Programming Constraints**, *International Conference on Machine Learning*, 2021, eprint: <https://arxiv.org/abs/2105.02343>.
- [17] T. Brázdil, D. Klaška, A. Kučera, V. Musil, P. Novotný, and V. Řehák, **On-the-fly Adaptation of Patrolling Strategies in Changing Environments**, *Conference on Uncertainty in Artificial Intelligence*, 2022.
- [18] D. Klaška, A. Kučera, V. Musil, and V. Řehák, **General Optimization Framework for Recurrent Reachability Objectives**, *International Joint Conference on Artificial Intelligence*, 2022, eprint: <https://arxiv.org/abs/2205.14057>.
- [19] D. Klaška, A. Kučera, V. Musil, and V. Řehák, **Minimizing Expected Intrusion Detection Time in Adversarial Patrolling**, *International Conference on Autonomous Agents and Multiagent Systems*, 2022, eprint: <https://arxiv.org/abs/2202.01095>.

## Preprints

- [20] S. Sahoo, M. Vlastelica, A. Paulus, V. Musil, V. Kuleshov, and G. Martius, **Gradient Back-propagation Through Combinatorial Algorithms: Identity with Projection Works**, submitted, eprint: <https://arxiv.org/abs/2205.15213>.