

Prof. Dr. Roman Rischke

PUBLICATIONS

15. April 2023

For an updated list of publications, please visit my [Google Scholar Profile](#).

Journal

- [1] H. Hoech, R. Rischke, K. Müller, W. Samek. *FedAUXfdp: Differentially private one-shot federated distillation*. In: R. Goebel et al. (eds). Trustworthy Federated Learning. FL 2022. Lecture Notes in Computer Science, vol. 13448, 2023.
- [2] R. Rischke, L. Schneider, K. Müller, W. Samek, F. Schwendicke, J. Krois. *Federated learning in dentistry: Chances and challenges*. Journal of Dental Research, 2022.
- [3] F. Sattler, A. Marban, R. Rischke, W. Samek. *CFD: Communication-Efficient Federated Distillation via Soft-Label Quantization and Delta Coding*. IEEE Transactions on Network Science and Engineering, vol. 9(4), pp. 2025–2038, 2022.
- [4] F. Sattler, T. Korjakow, R. Rischke, W. Samek. *FedAUX: Leveraging unlabeled auxiliary data in federated learning*. IEEE Transactions on Neural Networks and Learning Systems, 2021.
- [5] L. Chen, N. Megow, R. Rischke, L. Stougie, and J. Verschae. *Optimal algorithms for scheduling under time-of-use tariffs*. Annals of Operations Research, vol. 304, pp. 85–107, 2021.
- [6] F. Abed, L. Chen, Y. Disser, M. Groß, N. Megow, J. Meißner, A. Richter, and R. Rischke. *Scheduling maintenance jobs in networks*. Theoretical Computer Science, vol. 754, pp. 107–121, 2019.
- [7] M. Drwal and R. Rischke. *Complexity of scheduling on parallel identical machines to minimize total flow time with interval data and minmax regret criterion*. Operations Research Letters, vol. 44(3), pp. 354–358, 2016.

Conference

- [1] H. Hoech, R. Rischke, K. Müller, W. Samek. *FedAUXfdp: Differentially private one-shot federated distillation*. International Workshop on Trustworthy Federated Learning in conjunction with IJCAI 2022 (FL-IJCAI'22). arXiv:2205.14960, 2022.
- [2] P. Helle, J. Pfaff, M. Schäfer, R. Rischke, T. Hinz, P. Merkle, H. Schwarz, D. Marpe, T. Wiegand. *Non-linear weighted intra prediction*. Input document JVET-L0199 for the 12th JVET Meeting, Macao, October 2018.
- [3] P. Helle, J. Pfaff, M. Schäfer, R. Rischke, H. Schwarz, D. Marpe, T. Wiegand. *Intra picture prediction for video coding with neural networks*. In Proceedings of the 29th Data Compression Conference (DCC), pp. 448–457, 2019.
- [4] P. Merkle, J. Pfaff, P. Helle, R. Rischke, M. Schäfer, B. Stallenberger, H. Schwarz, D. Marpe, T. Wiegand. *Non-linear weighted intra prediction (Test 6.1.1)*. Input document JVET-K0266 for the 11th JVET Meeting, Ljubljana, July 2018.
- [5] P. Helle, T. Hinz, R. Rischke, J. Pfaff, P. Merkle, M. Schäfer, B. Stallenberger, V. George, H. Schwarz, D. Marpe, T. Wiegand. *Non-linear weighted intra prediction*. Input document JVET-K0196 for the 11th JVET Meeting, Ljubljana, July 2018.

- [6] M. Albrecht et al. *Description of SDR, HDR and 360° video coding technology proposal by Fraunhofer HHI*. Input document JVET-J0014 for the 10th JVET Meeting, San Diego, April 2018.
- [7] F. Abed, L. Chen, Y. Disser, M. Groß, N. Megow, J. Meißner, A. Richter, and R. Rischke. *Scheduling maintenance jobs in networks*. In Proceedings of the 10th International Conference on Algorithms and Complexity (CIAC), pp. 19–30, 2017.
- [8] L. Chen, N. Megow, R. Rischke, L. Stougie, and J. Verschae. *Optimal algorithms and a PTAS for cost-aware scheduling*. In Proceedings of the 40th International Symposium on Mathematical Foundations of Computer Science (MFCS), vol. 9235 of LNCS, pp. 211–222. Springer, 2015.
- [9] L. Chen, N. Megow, R. Rischke, and L. Stougie. *Stochastic and robust scheduling in the cloud*. In Proceedings of the 18th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX) and 19th International Workshop on Randomization and Computation (RANDOM), vol. 40 of LIPIcs, pp. 175–186. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2015.
- [10] R. Rischke. *Two-stage robust combinatorial optimization with priced scenarios*. In Operations Research Proceedings 2013, Selected Papers of the International Conference on Operations Research (OR), pp. 377–382, 2013.

Preprints & Others

- [1] L. Babilon, L. Kratochwill, K. Müller, R. Rischke, W. Samek, B. Stabernack and F. Steinert. Deutsche-Energie-Agentur (Hrsg.). *Auf dem Weg zu Energieeffizienter Künstlicher Intelligenz: Welche Energieeinsparpotentiale bieten KI-Anwendungen?*, 2022.
- [2] R. Rischke. *Deterministic, stochastic, and robust cost-aware scheduling*. Dissertation, Technische Universität München, 2016.

Patents

- [1] J. Pfaff, P. Helle, M. Schäfer, R. Rischke, T. Hinz, P. Merkle, B. Stallenberger, M. Winken, M. Siekmann, H. Schwarz, D. Marpe, T. Wiegand. *Intra predictions using linear or affine transforms with neighbouring sample reduction*. WO2020127811A3, 2020.