Personal Data

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PostDoc in Quantitative Methods in Business Administration, University of Bern,
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Research Interests

Combinatorial optimization, optimization in finance

Professional Experience

2018–	*University of Bern* PostDoc in Quantitative Methods
2014–2018	*University of Bern* Teaching and Research Assistant in Quantitative Methods Teaching (responsibility for exercises): Combinatorial Optimization (MSc), Project Management and Project Planning (MSc), Quantitative Decision Support (BSc), Quantitative Methods in Business Administration I (BSc), Quantitative Methods in Business Administration II (BSc), Proseminar: Applications of Quantitative Methods in Business Administration (BSc)
2010–2013	*PPCmetrics AG* Investment Consultant (2011–2013) Working Student (2010–2011)
2010–2011	*University of Bern* Junior Assistant in Quantitative Methods

Honors and Fellowships

2018	INFORMS O.R. & Analytics Student Team Competition: Honorable mention
2013	Schmeller-prize for best master thesis
2013	Prize for outstanding master grade in autumn-term 2012

Education

2018	Ph.D. (Business Administration), University of Bern Thesis Title: „Optimization of index-based portfolios“
2012	M.S. (Business Administration), University of Bern
2010	B.S. (Economics), University of Bern

Academic Activities

Ad Hoc Reviewer for Journals:
European Journal of Operational Research, Operational Research, The Engineering Economist, Quantitative Finance

Ad Hoc Reviewer for Conferences:
IEEE International Conference on Industrial Engineering and Engineering Management

Stream Organizer or Session Chairman at:
Production and Operations Management Annual Conference

Publications and Presentations

Peer-reviewed journal articles

[4] O. Strub et al. A three-phase approach to an enhanced index-tracking problem with real-life constraints. *The Engineering Economist* (2019). To appear. →available online.

[3] M. Gnägi and O. Strub. Tracking and outperforming large stock-market indices. *Omega* (2019). To appear. →available online.

[2] O. Strub and N. Trautmann. A two-stage approach to the UCITS-constrained index-tracking problem. *Computers and Operations Research* 103, 167–183 (2019). →available online.

[1] O. Strub and P. Baumann. Optimal construction and rebalancing of index-tracking portfolios. *European Journal of Operational Research* 264 (1), 370–387 (2018). →available online.

Conference proceedings

[5] O. Strub. A new MILP Formulation for Rebalancing Enhanced Index-tracking Portfolios. In: *Proceedings of the 2017 IEEE International Conference on Industrial Engineering and Engineering Management*. Ed. by A. De Meyer et al. Singapore, 2017, pp. 989–993.

[4] O. Strub and N. Trautmann. A genetic algorithm for the UCITS-constrained index-tracking Problem. In: *Proceedings of the 2017 IEEE Congress on Evolutionary Computation*. Ed. by J. Lozano. San Sebastián, 2017, pp. 822–829.

[3] O. Strub and N. Trautmann. An application of Microsoft Excel's evolutionary solver based on a novel chromosome encoding scheme to the 1/N portfolio tracking problem. In: *Proceedings of the 2016 IEEE International Conference on Industrial Engineering and Engineering Management*. Ed. by K. Suryadi et al. Bali, 2016, pp. 745–749.

[2] O. Strub and N. Trautmann. An iterated greedy heuristic for the 1/N portfolio tracking problem. In: *Proceedings of the 5th International Conference on Operations Research and Enterprise Systems*. Ed. by B. Vitoriano, G.H. Parlier, and D. de Werra. Rome, 2016, pp. 424–431.

[1] O. Strub and P. Baumann. Index tracking using data-mining techniques and mixed-binary linear programming. In: *Proceedings of the 2015 IEEE International Conference on Industrial Engineering and Engineering Management*. Ed. by T. Magnanti et al. Singapore, 2015, pp. 1208–1212.

Presentations

[15] O. Strub. *A matheuristic approach to building linear regression models*. June 6–7. 17th Swiss Operations Research Days, Lausanne, 2019.

[14] O. Strub. *A Local-branching heuristic for the best subset selection problem in linear regression*. December 16–19. IEEE International Conference on Industrial Engineering and Engineering Management, Bangkok, 2018.

[13] O. Strub. *A Matheuristic for the Best Subset Selection Problem in Linear Regression*. May 4–7. 29th Annual POMS Conference, Houston, 2018.

[12] O. Strub. *A new MILP Formulation for Rebalancing Enhanced Index-tracking Portfolios*. December 10–13. IEEE International Conference on Industrial Engineering and Engineering Management, Singapore, 2017.

[11] O. Strub. *A Hybrid Approach to the 1/n Portfolio Tracking Problem*. October 22–25. INFORMS Annual Meeting, Houston, 2017.

[10] O. Strub. *A genetic algorithm to construct index-tracking portfolios subject to the UCITS III concentration rule.* June 29–30. 15th Swiss Operations Research Days, Fribourg, 2017.

[9] O. Strub. *A genetic algorithm for the UCITS-constrained index-tracking problem.* June 5–8. IEEE Congress on Evolutionary Computation, San Sebastián, 2017.

[8] O. Strub. *An application of Microsoft Excel's evolutionary solver based on a novel chromosome encoding scheme to the 1/N portfolio tracking problem.* December 4–7. IEEE International Conference on Industrial Engineering and Engineering Management, Bali, 2016.

[7] O. Strub. *Optimal construction and rebalancing of index-tracking portfolios.* November 13–16. INFORMS Annual Meeting, Nashville, 2016.

[6] O. Strub. *A hybrid approach combining iterated greedy heuristics and quadratic programming to track the 1/N portfolio.* July 3–6. 28th European Conference on Operational Research, Poznan, 2016.

[5] O. Strub. *An iterated greedy heuristic for the 1/N portfolio tracking problem.* February 23–25. 5th International Conference on Operations Research and Enterprise Systems, Rome, 2016.

[4] O. Strub. *Index tracking using data-mining techniques and mixed-binary linear programming.* December 6 – 9. IEEE International Conference on Industrial Engineering and Engineering Management, Singapore, 2015.

[3] O. Strub. *Tracking the 1/N portfolio.* September 1 – 4. International Conference on Operations Research, Vienna, 2015.

[2] O. Strub. *Index tracking using unsupervised learning and mixed-binary convex programming.* May 27 – 29. 12th International Conference on Computational Management Science, Prague, 2015.

[1] O. Strub. *Construction of index-tracking portfolios using data mining and linear programming.* November 9 – 12. INFORMS Annual Meeting, San Francisco, 2014.