

## REFERENCES

- [1] Kevin Cremanns, Simon Hecker, Andreas Penkner, Christian Musch, and Dirk Roos. Robust design optimization of a steam turbine labyrinth seal based on surrogate models. In *Proceedings of ASME Turbo Expo 2018: Turbomachinery Technical Conference and Exposition*, Oslo, Norway, 2018.
- [2] Kevin Cremanns, Andreas Penkner, Simon Hecker, Christian Musch, and Dirk Roos. Steam turbine exhaust optimization based on gaussian covariance networks using transient cfd simulations. In *Proceedings of ASME Turbo Expo 2018: Turbomachinery Technical Conference and Exposition*, Oslo, Norway, 2018.
- [3] Kevin Cremanns and Dirk Roos. Deep gaussian covariance network. *arXiv preprint arXiv:1710.06202*, 2017.
- [4] Christian Musch, Kevin Cremanns, Simon Hecker, and Andreas Penkner. Combined optimisation of the last stage and diffuser in a steam turbine using meta-models. In *Proceedings of 12th European Conference on Turbomachinery Fluid dynamics & Thermodynamics*, Stockholm, Sweden, 03-07, April 2017.
- [5] Kevin Cremanns and Dirk Roos. Surrogate-based multi-objective stator optimization using variation of complex free-form surfaces. In *CAESES European Users Meeting*, Potsdam, Germany, 2017.
- [6] Lars Lueckemeyer, Kevin Cremanns, and Florian Hiss. Probabilistic methods in rotor dynamics of turbine-generator retrofit. In *NAFEMS World Congress*, Stockholm, Sweden, 11-14 June 2017.
- [7] Kevin Cremanns, Dirk Roos, Simon Hecker, Peter Dumstorff, Henning Almstedt, and Christian Musch. Efficient multi-objective optimization of labyrinth seal leakage in steam turbines based on hybrid surrogate models. In *9. Dresdner-Probabilistik-Workshop*, Dresden, Germany, 06-07 October 2016.
- [8] Kevin Cremanns, Dirk Roos, Simon Hecker, Peter Dumstorff, Henning Almstedt, and Christian Musch. Efficient multi-objective optimization of labyrinth seal leakage in steam turbines based on hybrid surrogate models. In *Proceedings of ASME Turbo Expo 2016: Turbomachinery Technical Conference and Exposition*, Seoul, South Korea, 13-17 June 2016.
- [9] Kevin Cremanns and Dirk Roos. A new optimized anisotropic moving least squares surrogate model with maximized prognosis. In *VII European Congress on Computational Methods in Applied Sciences and Engineering*, Crete Island, Greece, 05-10 June 2016.
- [10] Dirk Roos and Kevin Cremanns. Reliability and robustness based design optimisation of a radial compressor concerning fluid-structure interaction. In *NAFEMS European Conference: Simulation-Based Optimisation*, Manchester, United Kingdom, 12-13 October 2016.
- [11] Kevin Cremanns, Arne Grassmann, Dirk Roos, Carsten Fuetterer, and Joerg Palluch. Robust multi-objective optimization on an aero engine stator blade based on hybrid surrogate models. In *Von Karman Institute: Workshop on Turbomachinery Aerodynamic and Multi-disciplinary Optimization: Current State of the Art and Future Trends*, Brussels, Belgium, 15-16 November 2016.
- [12] Kevin Cremanns and Dirk Roos. Anisotropic, hybrid meta models with maximized prognosis within multi-domain turbomachinery engineering. In *Weimarer Optimierungs und Stochastiktage*, Weimar, Germany, 05-06 November 2015.
- [13] Kevin Cremanns, Hansjrg Lehmkuhl, Dirk Roos, Tim Wanzek, Daniela Karschnia, Frank Seifert, Jessica Jasper, and Stefan Rothgang. Multicriterial optimization and robustness evaluation of a radial compressor impeller. In *3rd ECCOMAS Young Investigators Conference*, Aachen, Germany, 20-23 July 2015.
- [14] Kevin Cremanns, Hansjrg Lehmkuhl, Dirk Roos, Tim Wanzek, Daniela Karschnia, Frank Seifert, Jessica Jasper, and Stefan Rothgang. Multi-objective design optimization of an electrical air compressor impeller with subsequent robustness evaluation. In *ANSYS CADFEM Users Meeting*, Bremen, Germany, 24-26 June 2015.
- [15] Kevin Cremanns, Dirk Roos, and Peter Dumstorff. Introduction of a new optimized machine learning process based on examples of mechanical engineering. In *8. Dresdner-Probabilistik-Workshop*, Dresden, Germany, 08-09 October 2015.
- [16] Kevin Cremanns, Dirk Roos, and Arne Grassmann. Increased efficiency by optimizing the last stage of a steam turbine. *RDO-Journal*, 1:6–15, 2014.

- [17] Kevin Cremanns, Dirk Roos, and Arne Gramann. Conventional partwise optimization vs. coupled optimization of the last stage of a low pressure steam turbine with an axial-radial diffuser. In *ANSYS CADFEM Users Meeting*, Nuernberg, Germany, 04-06 June 2014.
- [18] Kevin Cremanns, Dirk Roos, and Arne Gramann. Sequential vs. multidisciplinary coupled optimization and efficient surrogate modeling of a last stage and the successive axial-radial diffuser in a low pressure steam turbine. In *Proceedings of ASME Turbo Expo 2014: Turbo-machinery Technical Conference and Exposition*, Duesseldorf, Germany, 16-20 June 2014.
- [19] Kevin Cremanns, Dirk Roos, and Ralf Voss. Requirements and new approaches of probabilistic optimal design from a practical point of view considering steam turbines. In *7. Dresdner-Probabilistik-Workshop*, Dresden, Germany, 08-09 October 2014.
- [20] Kevin Cremanns, Dirk Roos, and Ralf Voos. Requirements and new approaches of probabilistic optimal design from a practical point of view considering steam turbines. In *Weimarer Optimierungs und Stochastiktag*, Weimar, Germany, 06-07 November 2014.
- [21] Dirk Roos, Kevin Cremanns, and Tim Jasper. Probability and variance-based stochastic design optimization of a radial compressor concerning fluid-structure interaction. In *VI International Conference on Adaptive Modeling and Simulation*, Lisbon, Portugal, 3-5 June 2013.
- [22] Dirk Roos, Kevin Cremanns, and Tim Jasper. Probability and variance-based stochastic design optimization of a radial compressor concerning fluid-structure interaction. In *Conference: V International Conference on Coupled Problems in Science and Engineering*, Ibiza, Spain, 17-19 June 2013.
- [23] Dirk Roos, Kevin Cremanns, and Tim Jasper. Probability and variance-based stochastic design optimization of a radial compressor concerning fluid-structure interaction. In *NAFMES: Innovative Anwendungen der Strömungssimulation (CFD) in der Produktentwicklung*, Wiesbaden, Germany, 18-19, March 2013.