Bibliography

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References

- [1] G. Ortali, N. Demo, and G. Rozza, "Gaussian process approach within a data-driven POD framework for fluid dynamics engineering problems," *Mathematics in Engineering*, vol. 4, no. 3, pp. 1–16, 2022. DOI: 10.3934/mine.2022021. arXiv: 2012.01989 [math.NA].
- [2] N. Demo, M. Tezzele, A. Mola, and G. Rozza, "Hull shape design optimization with parameter space and model reductions, and self-learning mesh morphing," *Journal of Marine Science and Engineering*, vol. 9, no. 2, 2021, ISSN: 2077-1312. DOI: 10.3390/jmse9020185. arXiv: 2101.03781 [math.NA]. [Online]. Available: https://www.mdpi.com/2077-1312/9/2/185.
- [3] N. Demo, G. Ortali, G. Gustin, G. Rozza, and G. Lavini, "An efficient computational framework for naval shape design and optimization problems by means of data-driven reduced order modeling techniques," *Bollettino dell'Unione Matematica Italiana*, Nov. 2020, ISSN: 2198-2759. DOI: 10.1007/s40574-020-00263-4. arXiv: 2004.11201 [math.NA]. [Online]. Available: https://doi.org/10.1007/s40574-020-00263-4.
- [4] N. Demo, M. Tezzele, and G. Rozza, "A supervised learning approach involving active subspaces for an efficient genetic algorithm in high-dimensional optimization problems," *submitted*, 2020. arXiv: 2006.07282 [math.NA].
- [5] M. Tezzele, N. Demo, A. Mola, and G. Rozza, "PyGeM: Python geometrical morphing," Software Impacts, p. 100 047, 2020, ISSN: 2665-9638. DOI: https://doi.org/10.1016/j.simpa.2020.100047. [Online]. Available: http://www.sciencedirect.com/science/article/pii/S2665963820300385.
- [6] M. Tezzele, N. Demo, G. Stabile, A. Mola, and G. Rozza, "Enhancing cfd predictions in shape design problems by model and parameter space reduction," *Advanced Modeling and Simulation in Engineering Sciences*, vol. 7, no. 1, p. 40, Oct. 2020, ISSN: 2213-7467. DOI: 10.1186/s40323-020-00177-y. arXiv: 2001.05237 [math.NA]. [Online]. Available: https://doi.org/10.1186/s40323-020-00177-y.

- [7] N. Demo, M. Tezzele, A. Mola, and G. Rozza, "A complete data-driven framework for the efficient solution of parametric shape design and optimisation in naval engineering problems," in VIII International Conference on Computational Methods in Marine Engineering, 2019. arXiv: 1905.05982 [math.NA].
- [8] N. Demo, M. Tezzele, and G. Rozza, "A non-intrusive approach for the reconstruction of POD modal coefficients through active subspaces," Comptes Rendus Mécanique, vol. 347, no. 11, pp. 873-881, Nov. 2019. DOI: 10. 1016/j.crme.2019.11.012. arXiv: 1907.12777 [math.NA]. [Online]. Available: https://doi.org/10.1016/j.crme.2019.11.012.
- [9] M. Tezzele, N. Demo, and G. Rozza, "Shape optimization through proper orthogonal decomposition with interpolation and dynamic mode decomposition enhanced by active subspaces," in VIII International Conference on Computational Methods in Marine Engineering, 2019. arXiv: 1905.05483 [math.NA].
- [10] N. Demo, M. Tezzele, G. Gustin, G. Lavini, and G. Rozza, "Shape optimization by means of proper orthogonal decomposition and dynamic mode decomposition," in *Technology and Science for the Ships of the Future: Proceedings of NAV 2018: 19th International Conference on Ship & Maritime Research*, IOS Press, 2018, pp. 212–219. DOI: 10.3233/978-1-61499-870-9-212. arXiv: 1803.07368 [math.NA].
- [11] N. Demo, M. Tezzele, A. Mola, and G. Rozza, "An efficient shape parametrisation by free-form deformation enhanced by active subspace for hull hydrodynamic ship design problems in open source environment," in *The 28th International Ocean and Polar Engineering Conference*, 2018. arXiv: 1801.06369 [math.NA].
- [12] N. Demo, M. Tezzele, and G. Rozza, "EZyRB: Easy reduced basis method," Journal of Open Source Software, vol. 3, no. 24, p. 661, Apr. 2018. DOI: 10.21105/joss.00661. [Online]. Available: https://doi.org/10.21105/joss.00661.
- [13] N. Demo, M. Tezzele, and G. Rozza, "PyDMD: Python dynamic mode decomposition," *Journal of Open Source Software*, vol. 3, no. 22, p. 530, Feb. 2018. DOI: 10.21105/joss.00530. [Online]. Available: https://doi.org/10.21105/joss.00530.
- [14] F. Garotta, N. Demo, M. Tezzele, M. Carraturo, A. Reali, and G. Rozza, "Reduced order isogeometric analysis approach for PDEs in parametrized domains," LNCS&E series, Springer, QUIET special volume "Quantification of Uncertainty: improving efficiency and technology [in press], 2018. arXiv: 1811.08631 [math.NA].
- [15] G. Rozza, M. H. Malik, N. Demo, et al., "Advances in Reduced Order Methods for Parametric Industrial Problems in Computational Fluid Dynamics," in Proceedings of the ECCOMAS Congress 2018, ECCOMAS, Glasgow, UK: ECCOMAS, 2018. arXiv: 1811.08319 [math.NA].

- [16] M. Tezzele, N. Demo, M. Gadalla, A. Mola, and G. Rozza, "Model order reduction by means of active subspaces and dynamic mode decomposition for parametric hull shape design hydrodynamics," in *Technology and Science for the Ships of the Future: Proceedings of NAV 2018: 19th International Conference on Ship & Maritime Research*, IOS Press, 2018, pp. 569–576. DOI: 10.3233/978-1-61499-870-9-569. arXiv: 1803.07377 [math.NA].
- [17] M. Tezzele, N. Demo, A. Mola, and G. Rozza, "An integrated data-driven computational pipeline with model order reduction for industrial and applied mathematics," in *Novel mathematics inspired by industrial challenges [in press]*. 2018. arXiv: 1810.12364 [math.NA].
- [18] E. Calore, N. Demo, S. F. Schifano, and R. Tripiccione, "Experience on vectorizing lattice boltzmann kernels for multi- and many-core architectures," in *Parallel Processing and Applied Mathematics*. Springer International Publishing, 2016, pp. 53–62, ISBN: 978-3-319-32149-3. DOI: 10.1007/978-3-319-32149-3_6. [Online]. Available: https://doi.org/10.1007/978-3-319-32149-3_6.