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## Employment

### Doctoral Candidate

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## Research outputs

### Control-oriented modelling for managed pressure drilling automation using model order reduction

Naderilordejani, S., Besselink, B., Abbasi, M. H., Kaasa, G. O., Schilders, W. H. A. & van de Wouw, N., May 2021, In: IEEE Transactions on Control Systems Technology. 29, 3, p. 1161-1174 14 p., 9099213.

**An Approximate Well-Balanced Upgrade of Godunov-Type Schemes for the Isothermal Euler Equations and the Drift Flux Model with Laminar Friction and Gravitation**

Abbasi, M. H., Naderilordejani, S., Berg, C., Iapichino, L., Schilders, W. H. A. & van de Wouw, N., Apr 2021, In: International Journal for Numerical Methods in Fluids. 93, 4, p. 1110-1142 33 p.

**On Extended Model Order Reduction for Linear Time Delay Systems**

Naderilordejani, S., Besselink, B., Chaillet, A. & van de Wouw, N., 2021, *Model Reduction of Complex Dynamical Systems*. Benner, P. (ed.). Cham: Birkhäuser Verlag, p. 191-215 25 p. (International Series of Numerical Mathematics (ISNM); vol. 171).

**Reduced basis method for managed pressure drilling based on a model with local nonlinearities**

Abbasi, M. H., Iapichino, L., Naderilordejani, S., Schilders, W. H. A. & van de Wouw, N., 15 Dec 2020, In: International Journal for Numerical Methods in Engineering. 121, 23, p. 5178-5199 22 p.

**Modeling and numerical implementation of managed pressure drilling systems for the assessment of pressure control systems**

Naderilordejani, S., Abbasi, M. H., Velmurugan, N., Berg, C., Stakvik, J. A., Besselink, B., Iapichino, L., Di Meglio, F., Schilders, W. H. A. & van de Wouw, N., Dec 2020, In: SPE Drilling & Completion . 35, 4, p. 598-619 22 p., SPE-201108-PA.

**Model reduction for infinite-dimensional systems: with application to managed pressure drilling**

Naderilordejani, S., 20 Nov 2020, Eindhoven: Technische Universiteit Eindhoven. 225 p.

**Model order reduction for linear time delay systems: a delay-dependent approach based on energy functionals**

Naderilordejani, S., Besselink, B., Chaillet, A. & van de Wouw, N., Feb 2020, In: Automatica. 112, 10 p., 108701.

**Control-oriented model reduction for a class of hyperbolic systems with application to managed pressure drilling**

Leenen, T. C. P. F., Naderilordejani, S. N., Besselink, B., Schilders, W. H. A. & van de Wouw, N., 2020, In: IFAC-PapersOnLine. 53, 2, p. 7698-7703 6 p.

**An extended model order reduction technique for linear delay systems**

Naderilordejani, S., Besselink, B. & van de Wouw, N., Dec 2019, *58th IEEE Conference on Decision and Control (CDC 2019)*. Institute of Electrical and Electronics Engineers, p. 7782-7787 6 p. 9029350. (Proceedings of the IEEE Conference on Decision and Control; vol. 2019-December).

**A Godunov-type scheme for the drift flux model with variable cross section**

Abbasi, M., Naderilordejani, S., Velmurugan, N., Berg, C., Iapichino, L., Schilders, W. & van de Wouw, N., 1 Aug 2019, In: Journal of Petroleum Science and Engineering. 179, p. 796-813 18 p.

**Reduced basis method for hyperbolic systems with nonlinear boundary conditions**

Abbasi, M. H., Iapichino, L., Naderilordejani, S., Schilders, W. H. A. & van de Wouw, N., Jun 2018, p. 1-1. 1 p.

**Model order reduction for managed pressure drilling systems based on a model with local nonlinearities**

Naderilordejani, S., Besselink, B., Abbasi, M. H., Kaasa, G. O., Schilders, W. H. A. & van de Wouw, N., 1 Jan 2018, In: IFAC-PapersOnLine. 51, 8, p. 50-55 6 p.

**Control-oriented modeling and model order reduction for managed pressure drilling systems**

Naderilordejani, S., Besselink, B., Abbasi, M. H., Kaasa, G. O., Schilders, W. H. A. & van de Wouw, N., 2018, *4th International Colloquium on Non-linear dynamics and control of deep drilling systems*. Aarsnes, U. J. F., Detournay, E., van de Wouw, N. & Denoël, V. (eds.). San Francisco: IRIS, p. 109-120

**Nonlinear model order reduction for MPD Systems**

Naderilordejani, S., Besselink, B., Schilders, W. H. A. & van de Wouw, N., 2018.

**Automatic model order reduction for Hydraulics modeling**

Abbasi, M. H., Bansal, H., Naderilordejani, S., Velmurugan, N., Iapichino, L., de Megliu, F., Schilders, W. H. A. & van de Wouw, N., 2017. 1 p.