

# Special Issue

## Model Validation Procedures

### Message from the Guest Editor

This Special Issue aims to establish a collection of articles on reliable model validation and calibration procedures in order to define novel standards. We welcome research articles on novel methods, but also review papers, in order to give an overview about the current state-of-the-art. Topics include, but are not limited to, the following:

- Novel and scientifically sound calibration and validation procedures for computational, statistical, and machine-learning based models in life sciences and process engineering;
- Novel statistical approaches for experimental data;
- Criteria to define the validity of model outcomes, specifically, machine learning-based methods;
- Calibration protocols for coarse-grained and molecular models;
- Reliable calibration and validation procedures for mechanistic, hybrid, statistical, computational fluid dynamics, and lattice-Boltzmann simulations, as well as neural network approaches for the study of unit operation behavior in bioprocesses;
- Validation and calibration protocols for integrated processed and coupled unit operation models.

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### Guest Editor

Dr. Jens Smiatek

Institute for Computational Physics, University of Stuttgart, 70569 Stuttgart, Germany

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### Deadline for manuscript submissions

closed (30 November 2021)



## Processes

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*Processes*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[processes@mdpi.com](mailto:processes@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

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### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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