

Research Project

Bernoulli-Euler Online (BEOL): Development of a platform for digital editing and a virtual research environment for historical scientific texts

Third-party funded project

Project title Bernoulli-Euler Online (BEOL): Development of a platform for digital editing and a virtual research environment for historical scientific texts

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Organisation / Research unit

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Department

Project start 01.07.2016

Probable end 30.06.2019

Status Completed

The project Bernoulli-Euler Online (BEOL) integrates the two edition projects Basler Edition der Bernoulli-Briefwechsel (BEBB) and Leonhardi Euleri Opera Omnia (LEOO) into one digital platform available on the web. In addition, Jacob Bernoulli's scientific notebook Meditationes - a document of outstanding significance for the history of mathematics at its turning point around 1700 - will be published, offering a multilayer access to the user (facsimile, transcription, critical text, translations, indices, and commentaries). BEOL is implemented within Knora/SALSAH, a generic virtual research environment (VRE) for the humanities. Besides being an edition, BEOL will be a research platform for the study of early modern mathematics and science. It will also be interoperable with other digital platforms, which can interact with it via Knora's RDF-based data model and RESTful API. Knora relies on Semantic Web technologies such as OWL ontologies, and is well suited as a platform for the representation of complex structured qualitative knowledge. The goal of BEOL is thus twofold: It focuses on the mathematics influenced by the Bernoulli dynasty and Leonhard Euler and undertakes a methodological effort to present these materials to the public and researchers in a highly functional way. The methodology to be developed here can also be applied to other editions, enhancing the principle of Open Access publication (OA). OA on the basis of a VRE can be thought of as a truly digital form of publishing, which also presents information on (collaborative) authorship, versions, and underlying research data that cannot be implemented in print or print-like formats like PDF.

Keywords History of Mathematics, History of Science, Open Access, Virtual Research Environment, Digital Humanities, Semantic Web, Digital Edition

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