

FORSCHUNGSKOLLOQUIUM ZUR WISSENSCHAFTSGESCHICHTE

Prof. Dr. Friedrich Steinle

Roberto Lalli / Dirk Wintergrün

(MPIWG Berlin)

Building a Scientific Community in the Post-WWII Era

A Network Analysis of the Renaissance of General Relativity

During the second half of the twentieth century the field general relativity and gravitation experienced an impressive revival, which has been called the 'renaissance' of general relativity. The tools provided by the network analysis and visualization are employed to describe and investigate both social and epistemic aspects of this dynamical process. The increasing connectivity and the related topological transitions of the network of collaborations of scientists working in fields associated to general relativity can be interpreted as a periodization of the 'renaissance' of general relativity. On the basis of these quantitative analyses, we argue that a community of scholars working on general relativity and gravitation was already established before new astrophysical discoveries provided further connections between the theory of general relativity and the empirical world. In addition to the network analysis of the relativity community, a study of the historical evolution of the co-citation network is presented and conclusions are drawn about the connections between the 'renaissance' phenomenon and the increasing relevance of specific research fields.

Roberto Lalli is a historian of modern physical sciences currently working as Research Scholar at the Max Planck Institute for the History of Science in Berlin. His research especially focuses on the interactions of social and epistemic factors in a variety of historical processes involving the construction of scientific boundaries and their transformations.

Dirk Wintergrün's main focus is on developing, coordinating and managing digital projects which support research in the history of science. He is researching the implication digital tools have on the work of the scholar in the field and which tools and skills are necessary for the optimal use of digital media in research.

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16 Uhr

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