



**CfP SLSAeu 2023: Models, Metaphors and Simulations.
Epistemic Transformations in Literature, Science and the Arts**

Conference of SLSAeu

European Society for Literature, Science and the Arts

and

ELINAS Research Center for Literature and Natural Science

May, 18 – 21/2023

Friedrich-Alexander-University Erlangen-Nürnberg

PD Dr. Aura Heydenreich, Prof. Dr. Klaus Mecke

The SLSAeu Conference 2023 is centered on modes of exchange between discourses and practices of knowledge production, re-presentation and simulation which lead to epistemic transformations in science, literature and arts.

Metaphors, models and simulations are epistemic tools for physics, astronomy, climatology, earth system sciences, chemistry, biology, life sciences, medicine and robotics. Model-based reasoning is employed in social sciences, cognitive sciences, computer sciences, archaeology and architecture. While the usual categories for doing scientific research are experiments, theories and their falsifications, which are mainly based on technical equipment and mathematical formalism, recent approaches investigate how models and simulations are embedded in cultural processes, and ask how they are formed or epistemically transformed as parts of material cultures. Moreover, they ask how metaphors, models and simulations receive a certain epistemic agency and autonomy due to their artefactual (Knuutilla), mediation (Morgan/Morrison) and exemplification functions (Goodman/Elgin). Philosophy of science goes so far as to ask about the epistemic functions of fiction in the process of scientific modelling and simulation, and draws parallels between scientific models and fictive characters, objects, or places of literary fiction (Frigg, Nguyen).

The conference is meant to be a platform for this interdisciplinary exchange on epistemic cultures of modelling (Gelfert): How can we explore epistemic relations between models, fiction and simulations? How can we think of literary practices and modelling strategies as specific modes of epistemic inquiry? How can we gain new knowledge through the epistemic use of imagination (Badura/Kind) in literature, the arts and science? What is the epistemic function of aesthetics in scientific modelling practices? What interpretational problems arise due to crossdisciplinary approaches and different textual, diagrammatical, algorithmical and encoding practices?

We invite participants to outline the historical, cultural, and rhetorical formation and transformation of model-based knowledge (Magnani/Bertolotti) at the intersections between science, literature and the arts: Metaphors are used to transfer meaning and to frame and establish quantities, models are used to design theories and simulations are rendered to explore new possibilities for artefacts and empirical tests. Moreover, fictive thought experiments, the beauty of symmetries, and counterfactual assumptions provide epistemic access to ways of rethinking scientific models. Thus, epistemic transformations are ubiquitous in science, literature and the arts. But how do science and literature interrelate their practices of making models or simulations and making worlds? Which narrative techniques are employed by science, which modelling techniques by literary discourses? How do we relate affects, emotions, and experientiality to these epistemic practices of making worlds? Which narrative immersive techniques reflect the epistemic status of affects and emotions in practices of modelling, simulation and world-making?

We hope for interesting encounters between different communities: the philosophy of science investigates the relationships between models, simulations and theories of fiction as make-believe (Walton, Toon) as well as the artefactual and non-representational dimensions of models (Knuuttila). Cultural semiotics conceptualizes literature and the arts as secondary modelling systems (Lotman), the philosophy of mind explores epistemic uses of imagination (Amy Kind), the philosophy of art investigates ‚exemplification‘ as an epistemic practice in art and science (Goodman, Elgin). Narratology investigates narrative factuality and experientiality (Fludernik, Ryan) and history of science examines narrative strategies of scientific writing (Brandt, Schickore). But the question posed by Jay Labinger still remains: Where are the scientists in literature and science studies?

The conference seeks to establish and facilitate a dialogue between literary and cultural studies and various interdisciplinary science communities, history of science, philosophy of science, and science and technology studies. We invite papers as well as panels dealing with the epistemological functions of metaphors, models and simulations in literature, the arts, sciences, virtual realities, digital humanities, informatics, brain and cognitive sciences, climate sciences, earth system sciences, life sciences, astronomy, astrophysics. Questions could arise on the epistemic functions of models as mediators between arts and sciences, on the world building functions of models and literary texts, on the artefactual nature of models and simulations, on the epistemic function of aesthetics in modelling and simulation practices, on literary, artistic and scientific imagination in the process of modelling (Thorne), on the epistemic tools of representation – pictorial, mathematical, linguistic, algorithmic, 3-D — on non-representational accounts of modelling, on the process of epistemic transformation from metaphors to models and simulations, and on the cultural materiality of models and simulations.

The *European Society for Literature, Science and the Arts* SLSAeu is the sister organisation of the international, USA-based *Society for Literature, Science, and the Arts*. It welcomes colleagues in the humanities, the social sciences, the arts, all fields of science, medicine, engineering, computer sciences as well as independent scholars, artists and scientists. <http://www.slsa-eu.org>

ELINAS as an interdisciplinary research-centre aims at creating an institutionalised infrastructure for research, dedicated to the reciprocal transfer of knowledge between physics and literature. The center is concerned with the importance of language and metaphors in

physical research as well as with discursive and narrative modulations of scientific theories in literary texts. <http://elinas.fau.de/>

Confirmed plenary talks:

Roman Frigg, London School of Economics, London

Amy Kind, Claremont McKenna College, California

Winfried Menninghaus, Max Planck Institute for Empirical Aesthetics, Frankfurt a. M.

Jean Marie Schaeffer, École des Hautes Études et Sciences Sociales, Paris

Abstracts

Please send 400-word abstracts by the **20th of February 2023** to Aura Heydenreich (aura.heydenreich@fau.de). Please include “SLSAeu23” in the email subject line and a brief bio/bibliography, as well as an e-mail address and a postal address. Formats include paper presentations (20-25 minutes), interdisciplinary panels (including participants from three disciplines and a moderator), art events (multimedia, AV format). SLSAeu and ELINAS are committed to supporting young talents to present their work. We invite MA and PhD students to submit their paper. Proposals for interdisciplinary roundtables spanning science/technology, literature, humanities or social sciences, and the arts are especially welcome.

Registration

Details for the registration will be provided in due time. The early bird fee is 250 €. There will be reduced fees for students, unemployed and early career scholars.

Venue of the Conference

The main venue of the Conference will be the „Kollegienhaus“ and the „Orangerie“ of the Friedrich-Alexander-University (Universitätsstraße 15, 91054 Erlangen) which are located directly at the Erlangen Schlossgarten. The main train station and the University Library are just a stone’s throw away.

Accommodation

Room contingents in different hotels will be pre-reserved for conference participants. Please make your reservation as soon as possible as available rooms are limited.

For further information visit: <https://www.slsaeu23.fau.de/>

Key Dates:

Abstracts due:	20 February 2023
Decisions + Program:	1 March 2023
Registration:	1 April 2023
Conference:	18-21 May 2023

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