

Call for Papers

Symposium

Scales of Life From Basal Cognition to Planetary Intelligence

Organized by Maria Dębińska, Magdalena Krysztoforska, Julia Sánchez-Dorado, Ben Woodard

14-15 May 2025

11:00-21:00

ICI Berlin

In English

This symposium seeks to investigate how information processing, cognition, and other forms of sensing and making sense occur at different scales, and how the ways of understanding these scales inform and deform one another across the contemporary earth and life sciences. An exploration of these issues involves thinking with the increasingly relevant notion of the 'planetary' as a question of climate change and empire (Coen), as related to Gaia theory and its recent comeback in Earth System Science, as inclusive of the technosphere and its geopolitical implications (Bratton), and as a framing for understanding intelligence and life as planetary-scale phenomena (Frank et al.). Such an endeavour also entails observing how the study of the behaviour of biological organisms creates a mid-level bias in terms of the understanding of function (agency, teleology), and how looking at life itself through the lens of basal cognition may suspend all assumptions about the necessary material substrates for purportedly high-level capacities (Levin). Tracing the history of these ideas and their evolution over time is also crucial to orienting our planetary futures (Moynihan).

The organizers welcome proposals for 20-minute talks, working across a range of fields: philosophy, history of science, social studies of science, biology, earth sciences, and the arts. Presentations may address, but are not limited to, the following topics:

- How research projects in the contemporary earth and life sciences understand the very notion of scale as relevant to their objects and domains of investigation;
- How understanding information processing across scales, while risking descriptive ubiquity, can challenge stubborn or reactionary categorizations such as natural/artificial;

- The problem of the so-called ‘tyranny of scales’ in the modelling of complex physical systems and organisms, and possible strategies to deal with it;
- The origins of multi-scalar thinking in the 19th and 20th centuries.

Keynote speakers: Deborah Coen, Michael Levin, Thomas Moynihan

Deadline: abstracts of 250 words and short bios should be sent to scalesoflifesymposium@gmail.com by 28 February 2025. Letters of acceptance will be sent out by mid-March 2025. Participants with limited funding can apply to receive a lump sum towards travel and accommodation costs. As with all events at the ICI Berlin, there is no registration fee. Any queries should be addressed to the organizers.

Bratton, B. (2019). *The Terraforming*. Strelka Press.

Coen, D. (2018) *Climate in Motion. Science, Empire, and the Problem of Scale*. Chicago University Press.

Frank A., Grinspoon D., Walker S. (2022). "Intelligence as a planetary scale process." *International Journal of Astrobiology* 21, 47–61.

Levin, M. (2021). Life, death, and self: Fundamental questions of primitive cognition viewed through the lens of body plasticity and synthetic organisms. *Biochem. Biophys. Res. Commun.* 564, 114–133.

Moynihan, T. (2020). "Can Intelligence Escape its Terrestrial Past? Anticipations of Existential Catastrophe & Existential Hope from Haldane to Ćirković." *Cosmos and History: The Journal of Natural and Social Philosophy*, 16(1), 71–101.