

Information and Computing in Nature: Philosophical Perspectives

December 1-2, 2022

The Commission for the Philosophy of Science at the Polish Academy of Arts and Sciences (Polska Akademia Umiejętności) invites presentation proposals for the Conference on the Philosophy of Computing and Information. The theme of the conference will be Information and Computing in Nature: Philosophical Perspectives.

Potential topics include, but are not limited to:

- Non-Turing computational paradigms
- Computing and information in natural systems (e.g., cellular automata, cellular computing, neural computation, evolutionary computation, swarm intelligence, immune systems, membrane computing, amorphous computing, morphological computing, cognitive computing)
- The ontology of information in natural systems
- The epistemology and ontology of computer simulations of natural systems
- Biosemiotic inspirations in artificial autonomous systems
- Information and computation in autopoietic systems
- Information and computation in physical systems
- Natural information storage systems
- Information and computing in cosmology

This conference is being organized to advance our understanding of computing and information in natural systems. It is generally recognized that nature computes and processes information, but we need to continually explore how computing and information discloses itself in natural systems. This conference intends to bring together scientists and philosophers and create a forum for discussing philosophy in science. This dialog will in turn create opportunities for finding new forms of inquiry for understanding information and computing within nature itself.

Proposals for presentations should be submitted for anonymous review to:

[NatureCom.2022\[at\]gmail.com](mailto:NatureCom.2022[at]gmail.com).

On a separate page, the author(s) should provide their full name(s), affiliation(s), and a short CV/resume (up to 150 words). Proposals should not exceed 300–400 words (including references), and presentations should be given in English.

Important dates:

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| Nov. 14 st | - | Deadline for abstracts |
| Nov. 18 th | - | The authors of accepted abstract will be notified. |
| Nov. 21 st | - | Program finalized |
| Nov. 25 th | - | Zoom contacts sent out |
| Dec. 1-2 nd | - | Conference online (ZOOM)/hybrid(TBD) |

The online part of the conference will be organized using the ZOOM platform, and there are no fees for attending the conference. The list of accepted abstracts will be published prior to the conference, and the authors of selected abstracts will be invited to submit full papers (up to 6000 words with references) that will be considered for publication in the *Philosophical Problems in Science* journal in 2023/24.

Any inquiries should be sent to the conference secretary, Dr Roman Krzanowski, at:

[NatureCom.2022\[at\]gmail.com](mailto:NatureCom.2022[at]gmail.com)