

Second-Order Science: The Revolution of Scientific Structures

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Under the heading of “Second-order Science” a book will be published which presents a new architecture for the science system, based on a differentiation into three levels, roles and functions for the two additional levels. The lecture will be divided into three main parts.

- The first part lays out the new environments of second-order science and emphasizes the new configuration of first-order science as we know it and the two new levels of zero-order science with its concentration of research infrastructures and second-order science which operates on the building blocks from first-order science like models, theories, test results, theoretical concepts or functions.
- The second part focuses on significant major contemporary inversions within the science system which, in combination, constitute a new Copernican revolution. It will be shown that this new Copernican revolution can be characterized as a complexity and as a reflexivity revolution of the overall science system.
- Finally, second-order science can be institutionalized as research programs and as curricula in a variety of ways and the lecture will offer several examples for new research and teaching programs in this field.

Literature:

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