



## LIPHE4 Summer School 2026

# The End of Certainty

## Conversations on the Crisis of Science and Society

*This is not a course about finding answers. It is an invitation to rethink the questions.*

The summer school offers 3 days of intense reflections about Complexity, Uncertainty and Governance of Knowledge. We are living through a metacrisis: not only a failure of prediction, but a loss of the conceptual and cultural frameworks needed to integrate scientific knowledge, meaning, and ecological constraints. This Summer School will give you the opportunity to discuss with scholars who have spent decades confronting the limits of science, and what it means to think, decide, and act when certainty is not available.

First, on Day 1, participants will be introduced to the concept of Complex Adaptive Systems, systems that become something else in time, while maintaining a recognizable identity. Human societies are canonical examples. The central question to be explored will be the following: “*What does remain the same when societies become something else?*” and thus, how should we frame an analysis of their sustainability? Key ideas here are autopoiesis and structural coupling, holons and holarchies, introduced using simple examples to illustrate the epistemological consequences of complexity—i.e., the limits of modelling and the unavoidable coexistence of non-reducible representations of Complex Adaptive Systems across scales. Guest speaker Art Berman will examine how contemporary societies increasingly mistake models for reality itself, treating them not as provisional tools for navigating uncertainty but as stable representations of the world. He will suggest that modern knowledge lacks a coherent worldview and, at the same time, the erosion of shared narratives undermines society’s capacity to make sense of limits and change.

Next, on Day 2, participants will be guided directly to the heart of the crisis at the interface between science and policy. Starting from today’s most urgent challenges—environmental risks, technological transformations, political conflicts—we will discuss how the effective governance of these issues is challenged not by lack of data, but by the existence of irreducible uncertainty and conflicting values. In such conditions, the traditional ideal of science as a provider of certainty collapses, and Post-Normal Science is required to make processes of decision-making robust, transparent, and socially accountable—addressing situations where “facts are uncertain, values in dispute, stakes high, and decisions urgent.” In this different narrative, science is no longer a machine for producing truth, but a collective practice for navigating uncertainty. A practical example of effective tools developed at the Joint Research Centre of the European Commission will be discussed as case study.

On the last day, the conversation will address the most difficult territory of all: how societies live—or fail to live—with uncomfortable knowledge. We will show that ignorance is not simply a lack of information, but something actively produced within social systems. Why do societies resist bad news about their own future? Why do optimistic narratives persist even when evidence suggests otherwise? Through the lens of biosemiotics, identity, and socio-technical imaginaries, participants will examine the tension between what might be called “*noble lies*” (yes, we can) and “*toxic truths*” (*we are in trouble*). Here, scientific models give way to questions of meaning, narrative, and collective identity.



The programme concludes in an open afternoon session with our colleagues at the University of Florence and the participants of the parallel summer school on ecological macro-economics, a space for open conversation shaped by participants' questions.

### Downloads

- **Programme (this document)**
- **Syllabus**
- **Flyer**

### Teachers

- [Mario Giampietro](#) – ICREA Research Professor and Complexity Scientist
- [Silvio Funtowicz](#) – Mathematician and Philosopher of Science, Guest Researcher at the Centre for the Study of the Sciences and the Humanities (SVT), University of Bergen; Silvio Funtowicz was awarded the [2025 Boulding Award prize in honor of Kenneth Boulding](#)
- [Ansel Renner](#) – Consultant for the Joint Research Centre of the European Commission
- [Jacopo Giuntoli](#) – Consultant for the Joint Research Centre of the European Commission
- [Art Berman](#) – World-renowned energy consultant

### Who should apply?

This summer school is designed for those willing to question foundational assumptions: researchers, PhD students, master students, policymakers, consultants and practitioners working across sustainability, science and technology studies, science for governance, and complex systems.

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## Practical Details and Important Dates

### Organization and Venue

This summer school is organized by the LIPHE4 Scientific Association in collaboration with the Summer School on Ecological Macroeconomics and the Global South. **It will take place in Florence, September 7–9, 2026.** It will be held at the [Santa Verdiana](#) venue (Piazza Lorenzo Ghiberti, 27, 50122 Florence (FI), ITA) under the patronage of the **University of Florence**, the [PhD program in Social Sciences for Sustainability and Wellbeing \(S3W\)](#), and the [International Society for Ecological Economics](#).

### Accommodation

Participants are responsible for finding and booking their accommodation. [HERE](#) you can find a list of suggested accommodations together with [Hotel Bonifacio](#). (You can write to [info@hotelbonifacio.it](mailto:info@hotelbonifacio.it) specifying that you are coming for an event linked with the University of Florence.)

We recommend that you book your accommodation as soon as possible!

### Registration

**Early registration:** 350 €, before 15 June 2026

**Late registration:** 450 €, until 1 August 2026



The registration fees cover tuition costs, materials, lunches, coffee breaks and the social dinner. Meals will be vegetarian ([please look here for the reasons for this choice](#)). All other expenses are the responsibility of the participants and will be paid by them.

#### About LIPHE4

- **Homepage:** [liphe4.org/our-story](http://liphe4.org/our-story)

#### Contact Persons

- **Michele Manfroni** (LIPHE4 VP)

For registration solicitations, or related inquiries, please get in contact using the form at the end of this page (<https://liphe4.org/2026-summer-school/>).