



# International Conference



## NUCLEAR REVIVAL AND LEGACIES Insights from the Humanities and Social Sciences

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### Nuclear Revival and Legacies: insights from the humanities and social sciences International Conference

École nationale des ponts et chaussées, Champs sur Marne (Paris) – 21-22 October 2024

Nuclear energy was a minor topic in previous international negotiations on climate change. However, it took an unprecedented place at COP 28 in Dubai in late 2023. The period opened by the Fukushima disaster in 2011 seems to be drawing to a close - at least partially - as several countries have affirmed a commitment to (re)developing nuclear energy. This so-called "relaunch", "revival" or even "renaissance" consists in strengthening or accelerating development plans after years of crisis. In the context of climate change and geopolitical tensions over energy supply, many actors are reviving and reconfiguring justifications and promises that have accompanied nuclear technology since the post-war years. These include energy abundance, independence from fossil fuels, affordable electricity, welfare at the local and national scale, economic growth, and technological innovation. Taken together, this makes nuclear energy development appear necessary. However, nuclear power, which only accounts for a small portion of the global energy mix, must also contend with the uncertainties and costs associated with aging infrastructure, plant life extension, waste management, and decommissioning. Moreover, recent projects have resulted in unprecedented cost overruns, while the economic profitability of nuclear power as an argument is increasingly challenged by the plummeting costs for many renewable energy sources (e.g. wind and solar).

In this context, the humanities and social sciences can provide tools for understanding the socalled revival through analysis rooted in different disciplines. This revival both presupposes and engages legacies that persevere, such as the persistence of past futures (Koselleck, 2004), "old" technologies (Edgerton, 2008), and large technical systems (Hughes, 1987). We argue that nuclear futures are framed by categories, practices, and materials inherited from the past and perpetuated until today. This hypothesis is supported by a methodological commitment to analyzing nuclear technology and policy in the long term.

While holding a futuristic promise echoing past discourses, nuclear power carries an ancient legacy that weighs on its future. In the first decades as a civil industry, nuclear technologies relied primarily on an ideal of economic or scientific progress. However, what happens when the nuclear industry is simultaneously faced with issues of decline and renewal? How does this configuration shed light on the challenges of managing infrastructures that are presented as crucial in the context of climate change?

This conference aims to bring together social science and humanities perspectives on nuclear issues in an unprecedented context. Sociology, history, philosophy, anthropology, geography, political science, economy, and Science and Technology Studies approaches can complement each other to provide new insights into developments in this sector.

### Program

### Monday, October 21st

9h15 - Welcome Coffee

### 9h45-10h. OPENING SPEECH & INTRODUCTION

- Marc BARBIER, Director of IFRIS
- ORGANISING TEAM

### 10h-11h. KEYNOTE by Philip JOHNSTONE & Andrew STIRLING (SPRU, University of Sussex)

Evidence, Implications and Opportunities around Concealed Civil and Military Nuclear Obsolescence

### 11h05-12h45. SESSION 1 - NUCLEAR PROMISES

Chair: Maël GOUMRI (LAMSADE/Cermes3, University of Paris Dauphine)

- Lucie GENAY (EHIC, University of Limoges), From "Atoms for Peace" to "Atoms for the Earth": The Idaho National Laboratory and the Birth of the Green Atom
- Claire LE RENARD (LATTS CNRS, École nationale des ponts et chaussées, Gustave Eiffel University), A Neverending Narrative: The Grammar of Technologists Crafting the Credibility of the "Fast-Breeder" Reactor
- Willem BRABANTS (SCK-CEN, University of Liège), Framing Nuclear Innovation: SMRs in Belgian Media
- Markku LEHTONEN (Pompeu Fabra, University of Jyväskylä), Matti KOJO (LUT University), Hanna-Mari HUSU (LUT University), Mika KARI (University of Jyväskylä), Tapio LITMANEN (University of Jyväskylä), Constructing the SMR Promise: Promissory Narratives and their Counter-narratives in Canada, Finland, France, and the UK

### 12h45-12h55. Conclusion & Welcome at the ecole nationale des ponts et chaussees

• Jérôme LESUEUR, Deputy Director, Education & Research, École nationale des ponts et chaussées

13h-14h15 - Lunch

### 14h15-15h30. SESSION 2 - DECAYING INFRASTRUCTURES AND DECOMMISSIONNING Chair: Pierre DELVENNE (Spiral, University of Liège)

- Martin DENOUN, Pierre DELVENNE, Céline PAROTTE (Spiral, University of Liège), Grasping Infrastructure through Microcracks. The Stress Corrosion case in French Nuclear Reactors as a Nuclear Material Politics
- Andrei STSIAPANAU (Vytautus Magnus University), Unfolding the Ignalina NPP Archives: Decommission and Transitions
- Ange POTTIN, Ulrike FELT (University of Vienna), *Transforming Nuclear Reactors into Waste:* Decommissioning as a Practice of Residual Care

15h30-16h - Break

### 16h-17h15. SESSION 3 - NUCLEAR FUELS AND RESIDUES

**Chair:** Harry BERNAS (CNRS, University of Paris Saclay)

- Alexis GEISLER-ROBLIN (Centre Cavaillès, ENS Paris), Sustainable Waste and the Depoliticization of the Future
- Romain GARCIER (EVS, ENS Lyon), Informing and Complying. Information Infrastructures and the Management of Low and Very Low-Level Radioactive Waste
- Teva MEYER (CRESAT, University of Haute Alsace), Securitizing for Nothing? Discussing the Weaponability of Nuclear Fuel Supplies in the European Union

### Tuesday, October 22nd

8h30-9h - Coffee

### 9h-10h15. SESSION 4 - CONTAMINATED LEGACIES

**Chair:** Christine Fassert (LATTS, Gustave Eiffel University)

- Anaïs MAURER (Rutgers University), *The Ocean on Fire: Pacific Stories from Nuclear Survivors and Climate Activists*
- Rina KOJIMA (LATTS CNRS, École nationale des ponts et chaussées, Gustave Eiffel University), Reconstruction and Resilience after Fukushima: A Critical Analysis of Nuclear Risk and Disaster
- Shachi MOKASHI and Michiel VAN OUDHEUSDEN (Vrije Universiteit Amsterdam), From Radiation to Air Pollution: Infrastructural Manoeuvring within Citizen Environmental Monitoring

#### 10h15-10h45 - Break

### 10h45-12h30. SESSION 5 - NUCLEAR TERRITORIES

Chair:

- Gabriella RAGO (University of Turin, University of Naples), Fusion Valley. The International Thermonuclear Experimental Reactor (ITER) and the Territories (2006-2012)
- Belinda RAVAZ (UHA, Haute École d'Ingénierie et de gestion du Canton de Vaud), Spatial Redevelopment Trajectories of Nuclear Sites. The Cases of Brunsbüttel and Fessenheim
- Alexis SPIRE (IRIS, CNRS), The Territorial Bias of Consent to Nuclear Risk. Ethnographic Study Among the Residents of the Dunkirk Coastline
- Jérémy BOUILLET (EDF R&D SEQUOIA-GRETS, Sciences Po), Nothing has changed, everything has changed. The surge in public opinion in its support for nuclear energy in France and Europe (2020-2024)

#### 12h30-13h50 - Lunch

### 13h50-14h50. KEYNOTE by Tatiana KASPERSKI (Södertörn University)

Can the Atom ever be Peaceful? Ukraine from Nuclear Weapons to Reactors as Weapons.

### 14h50-16h30. SESSION 6 - NUCLEAR TRAJECTORIES AND NARRATIVES

**Chair:** Ulrike FELT (University of Vienna)

- Vidar EKSTRÖM, Nina KIVINEN, Åse LINNÉ, Maria MURGUNOVA, Marcus LINDAHL (Uppsala University), Reconnecting and Disconnecting from Nuclear History Imaginaries from Sweden's Nuclear Discourse
- Dejan JOVANOVIĆ, Ivana DAMNJANOVIĆ (University of Belgrade), New Fears, New Hopes: Politics of Nuclear Power in Serbia
- Stéphanie TILLEMENT (LEMNA, IMT Atlantique) and Frédéric GARCIAS (LUMEN, University of Lille), *Planning and the Nuclear Industry in "post-Messmer" France*
- Siegfried EVENS (KULeuven), Atoms from Abroad: A Transnational History of Nuclear Energy in Belgium (1953-1985)

#### 16h30-17h. GENERAL DISCUSSION - CONCLUSION OF THE CONFERENCE

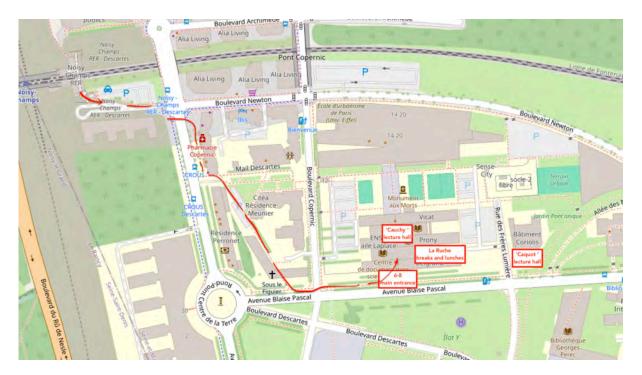
Program and abstracts online

### How to get there

The conference takes place in the Ecole nationale des Ponts et Chaussées. 6 et 8 avenue Blaise-Pascal - Cité Descartes – 77 420 Champs-sur-Marne – France

Access by the RER A suburban train line. RER A trains have different destinations: trains to Torcy or Marne La Vallée go to Noisy-Champs, you should board one of them, in the front coach if possible. Trains to Boissy-Saint-Léger are wrong for us as they take another embranchment. When in station Noisy - Champs, exit 3 - Cité Descartes.

Walking directions (6-7 mn): https://ecoledesponts.fr/en/getting-school. Be careful that if you exit the RER station at another exit, there is a long way to go by foot (20 mn). See below the map.



A welcome desk is situated in the "Carnot" building (main building), 6-8 avenue Blaise Pascal.

On Monday 21<sup>st</sup>, all events take place in the "Carnot" building (main building).

Monday's keynote and sessions take place in the **"Cauchy" lecture hall** (access: stairs to the basement, behind the welcome desk).

Welcome coffee, lunch and coffee break take place in **"La Ruche/The Beehive" room** (access: ground floor, on the right after the welcome desk).

On **Tuesday 22<sup>nd</sup>**, all events but the lunch take place in the **"Coriolis" building**. It is accessible by crossing the main building to the courtyard, turning to the right, and walking to the next building. Tuesday's keynote and sessions take place in the **"Caquot" lecture hall**. The welcome coffee and coffee break take place in the entry hall of the "Coriolis" building.

Tuesday's lunch takes place in **"La Ruche/The Beehive" room in the "Carnot" building** (main building - access: ground floor, on the right after the welcome desk).

### Organizing team

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