



**The
Bifurcation
Operation**
*Forking
Modernity*

26.-28.11.2025

Programme

PROGRAMME

The Bifurcation Operation *Forking Modernity*

Research Initiative: The Disruptive Condition
Organisers: Erich Hörl and Daniel Nemenyi

Leuphana Universität Lüneburg, C40.704,
Central Building, 21335 Lüneburg, Germany

26.-28.11.2025

Introduction

In these gravely perilous times, we must bifurcate: there is no alternative.

—*Bernard Stiegler and the Internation Collective*

We must avoid vicious bifurcation.

—*Alfred North Whitehead*

'Bifurcation' [*Gabelung, Verzweigung*], a word which originates in 19th century mathematics, has emerged as a key term for thinking philosophically today's disruptive condition—but in ways that seem radically heterogeneous.

The career of Isabelle Stengers best exemplifies this. In her groundbreaking collaborations with Ilya Prigogine of the 1980s she stressed the essential randomness of a system's transition through successive critical points of 'bifurcation', and thereby the uncertainty and openness of evolution and historical time. Yet her work from the 2000s would reinvigorate precisely another sense of bifurcation: Alfred North Whitehead's extensive attack on modern philosophy's 'bifurcation of nature'. Whitehead argued that modern philosophy and science bifurcates nature into an objective reality available only through abstract and numerical reasoning, and a subjective, inferior reality experienced by the senses. Accordingly, Stengers argues: 'Science becomes a predatory machine. It arms the institution against whatever it calls opinion.' Didier Debaise, our workshop's keynote speaker, continues that at stake in this is an 'operation' which involves the 'permanently repeated gesture of dividing bodies and their qualities.' The consequences of the bifurcation operation are wide ranging and real. To name but one: the privileging of minds over bodies, whose critique has been taken up after Whitehead by feminists including Maria Puig de la Bellacasa, Donna Haraway and others.

At the same time, Bernard Stiegler's restless demand for bifurcations, prior to his untimely death in 2020, involves yet another sense to the term. Stiegler calls for singular and improbable 'bifurcations', or forkings in directions that might establish new circuits of intergenerational transindividuation which break from the toxic effects of today's algorithmically automated society. He calls for such practical bifurcations prolifically but without offering a sustained philosophical explanation to ground them. Why does Stiegler lean on this, of all terms? How

does his use relate to the senses already established by Stengers? Furthermore, how does his 'bifurcation' relate to those who he mentions in passing that he took inspiration from, and what do they bring in their own right? He names three: the self-deviating open systems of Ludwig von Bertalanffy (which were well known to Stengers and Prigogine), the topological Catastrophe Theory of René Thom (who clashed harshly with them), and the bifurcations of Jorge Luis Borges' multiversal detective story, 'The Garden of Forking [*bifurcan*] Paths', whose rich philosophical readings have involved concepts certainly dear to Stiegler himself, particularly by Jacques Derrida and Gilles Deleuze.

Are there paths, however forked, which lead between these various senses of bifurcation? *Bifurcation Operation: Forking Modernity* is an international workshop which will take place at Leuphana Universität Lüneburg from the evening of 26th November 2025 to that of the 28th November. We are honoured to have a keynote presented by Didier Debaise. It is organised by Erich Hörl and Daniel Nemenyi as part of the Disruptive Condition research initiative, with the support of funding from the Niedersächsisches Ministerium für Wissenschaft und Kultur and the VolkswagenStiftung.

Attendance of the workshop is free and everyone is welcome. For updates and further information contact daniel.nemenyi@leuphana.de.

Erich Hörl and Daniel Nemenyi

Schedule

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Abstracts and Bios

Erich Hörl

Introduction: The Bifurcation Operation in Times of Disruption

Wednesday 26.11.2025, 18:00–18:30

Erich Hörl has held the professorship of Media Culture and Media Philosophy at Leuphana University Lüneburg since 2014 and has held the position of Vice President for Research since 2022. He is also co-director of the Leuphana Institute for Advanced Studies in Culture and Society and deputy speaker of the DFG Research Training Group 'Cultures of Critique.' In November 2024 he has been appointed as an Extraordinary Professor at the Center for the Humanities Research of the University of the Western Cape, South Africa.

He is currently working on the theory and history of disruption, which grasps disruptivity as a key problem for understanding the contemporary world; on a general ecology and critique of environmentality. He publishes internationally on the history, problems and challenges of the contemporary technological condition.

Didier Debaise

The Gesture of Bifurcation: How Did the Moderns Invent Themselves?

Wednesday 26.11.2025, 18:30–19:45

I would like to propose a precise definition of the Moderns: they are those who invent themselves through the gesture of bifurcation and who never cease to reproduce it. Rather than focusing on their mode of representation, their possible "worldview," or their institutions, we should start from the gestures—their way of establishing an experience, of distinguishing orders of knowledge, of qualifying or disqualifying certain modes of experience, of establishing

hierarchies, of characterizing their beings, of situating others. These gestures are, as I would like to show, directly at once ontological, epistemological, and political, without any real possibility of distinguishing one from the other. Exploring these gestures, bringing them to light, understanding the underlying interests that animate them, and questioning their effects amounts to making a diagnosis of the constitution of the Moderns' world. The central gesture, as A. N. Whitehead has shown, is that of the "bifurcation of nature," around which all the frameworks of modern thought were constituted: the difference between the real and the apparent, between fact and value, between nature and the social. This gesture originates in the experimental sciences and first defines what nature is for the Moderns. To question the gesture of bifurcation is thus to question the genesis of the Moderns' naturalism, their conception of nature, and consequently, of all that they exclude from it.

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Didier Debaise is a permanent researcher at the Fonds National de la Recherche Scientifique (FNRS) and professor at the Free University of Brussels (ULB) where he teaches contemporary philosophy. He is the co-founder, with Isabelle Stengers, of the Groupe d'études constructivistes (GECO). His main areas of research are speculative philosophy, the invention of the concept of Nature, new forms of perspectivism, and the links between American pragmatism and contemporary French philosophy. He is director of two collections at Presses du réel, and a member of the editorial board of the journals Multitudes and Inflexions. He has written books on Whitehead's philosophy (Speculative Empiricism and Nature as Event), edited volumes on pragmatism (Vie et expérimentation), on the history of contemporary metaphysics (Philosophie des possessions), and he has published numerous papers on Bergson, Tarde, Souriau, Simondon, Deleuze, Stengers, and Latour. He has just published two edited volumes: one with Stengers on William James and another on a metaphysics of perspectivism.

Anne Alombert

Forking hypermodernity: From Technological Singularity to Neganthropic Bifurcations

Thursday 27.11.2025, 10:15–11:30

After postmodernity, the linear conception of time and the grand historical narratives become obsolete: in an entropic universe consumed by ecological catastrophe, the imaginary of progress gives way to a “suffering of finality,” which Jean-François Lyotard described as the “postmodern state of thought.” But the Anthropocene epoch is also a hyperindustrial epoch, in which technological acceleration continues to amplify, accompanied by new ideological “grand narratives” denying the law of entropy through the fantasy of “technological singularity.” How can we overcome the declinist imaginary imposed on us by scientific achievements and the futuristic imaginary that transhumanist ideologies attempt to revive?

I will try to show that the concepts of “neganthropic bifurcation” and “Neganthropocene” mobilized by Bernard Stiegler allow us to go beyond this alternative, by proposing a new conception of history, based on a new interpretation of the question of entropy, through a “neganthropology”. I will explain these concepts from their philosophical genealogy, going back to the reflections of Henri Bergson, A. N. Whitehead, Sigmund Freud or Norbert Wiener on the relationships between progress, entropy and tragedy. If hypermodernity implies renouncing the imaginary of progress and rediscovering the meaning of tragedy in an exhausted planet, it does not, however, lead us to fall into nihilism: on the contrary, it implies opening up the question of a neganthropic “à venir”, beyond entropic becoming and computational future.

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Anne Alombert is Associate Professor in contemporary philosophy at Paris 8 University. Her researches focuses on: the relationships between life, technology, mind and societies in contemporary philosophy and the anthropological and political challenges of digital technologies and artificial intelligence. She is the author of five French books: Penser l'humain et la technique. Derrida et Simondon après la métaphysique (ENS Editions, 2023), Schizophrénie numérique. La crise de l'esprit à l'ère des nouvelles technologies (Allia, 2023), Le capital que je ne suis pas ! Mettre l'économie et le numérique au service de l'avenir (Fayard, 2024), Penser avec Bernard Stiegler. De la philosophie des techniques à l'écologie politique (PUF, 2025), De la bêtise artificielle. Pour une politique des technologies numériques (Allia, 2025).

Milan Stürmer

A Decade of Bifurcation: Physical Perceptivity and the Principle of Solidarity

Thursday 27.11.2025, 11:45–13:00

We are thus led to the conclusion that all our knowledge is the play of our own mind. Indeed, on this supposition, it is a mere silly trick which leads me to speak in the plural, and I cannot imagine how I acquired the habit.

—Whitehead's *Presidential Address* to the Aristotelian Society, 6 November 1922

In his *Enquiry Concerning the Principles of Natural Knowledge* (1919), an incomplete and fragmented investigation written amid the sound of guns and during the air raids over London, Alfred North Whitehead addressed the “incurable poverty of language” in speaking about the difference between what is “perceived” and what is “*really* perceived.” Receiving the first Turner Lectureship the following year, Whitehead was given the opportunity to present an alternative exposition of his *Enquiry* to a broader audience in a series of lectures that would become *The Concept of Nature* (1920). It is here that Whitehead begins to speak of the fallacy of bifurcation, a term that would immediately be picked up by his contemporaries and become a crucial concept associated with Whitehead's oeuvre to this day.

Given its broad reception, it is perhaps surprising that the term largely disappears as he develops his philosophical thought throughout the 1920s. Even in *Science in the Modern World* (1925), which covers similar ground and clearly addresses the same problematic, the Term does not appear. Instead, he presents the issue as the Fallacy of Simple Location, which is itself discussed as part of the much broader Fallacy of Misplaced Concreteness. In his mature philosophical work, *Process and Reality* (1929), “bifurcation” is briefly referenced in a short section towards the end of the book, but is otherwise transformed into a different conceptual vocabulary.

In my talk, I will trace the term “bifurcation” through Whitehead's work in the 1920s as he slowly moves toward his metaphysical system in *Process and Reality*. Paying particular attention to his lectures at Harvard between 1924 and 1927, I will reconstruct Whitehead's various uses of the term just as it disappears from his published writings. I will end by posing the (speculative) question of why Whitehead largely abandons the term to the research workshop as a topic for discussion.

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Milan Stürmer is a postdoctoral researcher at the Erasmus School of Philosophy, Rotterdam. He works on the political epistemology and political economy of artificial intelligence systems and coordinates the Erasmus Institute for Philosophy and Technology. His broader project develops a Whiteheadian philosophy of technology. Since 2023, he has served as Vice-President of the European Society for Process Thought.

Bruce Clarke

Bifurcating Technics

Thursday 27.11.2025, 14:15–15:30

Are there also, so to speak, technics in the wild? If so, this would be the bifurcation to which my title alludes. Approaching what Stiegler following Derrida calls the pharmacology of technology in relation to beneficial and noxious modes of mechanicity, I will press on two issues in which Stiegler's presentations of organicity strike me as problematic. The first is whether the development of exosomatic organs is properly delimited to the technogenesis of the human being, as Stiegler following Lotka appears to think, or whether in fact exosomatic elaborations, widely distributed kinds of "natural technicity," have a much longer history in the evolution of the biosphere. Would a recognition of this pre- or non-human dynamic affect or modify the positive planks of the *Bifurcation* platform? The second issue concerns the matter of life's automaticity. Stiegler writes: "Life is automatic. A biological cell, for example, is a sequence of instructions and this sequence of instructions is automatic." However, by cordoning living processes within a reproductive genetic-informatic paradigm of external or allopoietic instruction, a characterization being vigorously dismantled by much contemporary biological work, this blunt depiction appears to reinscribe Stiegler's theory within the very control paradigm that he is elsewhere desperate to explode. Here is at least an opening for a reconsideration of biological automaticity generally as autonomous in some degree from the technosocial varieties of automaticity currently in entropic hyperdrive.

~

Bruce Clarke is Paul Whitfield Horn Distinguished Professor of Literature and Science Emeritus in the Department of English at Texas Tech University. He is a Baruch S. Blumberg/NASA Chair in Astrobiology at the Library of Congress. His latest books are Writing Gaia: The Scientific Correspondence of James Lovelock and Lynn Margulis, coedited with Sébastien

Dutreuil (Cambridge 2022), and Gaian Systems: Lynn Margulis, Neocybernetics, and the End of the Anthropocene (Minnesota 2020). He co-edits the book series Meaning Systems, published by Fordham University Press. Since 2019 he has co-curated the website Gaian Systems: Planetary Cognition Lab. More: brunoclarke.net.

Melanie Sehgal

Unlearning to Bifurcate Nature, Learning to Dramatize

Thursday 27.11.2025, 15:45–17:00

The bifurcation of nature all but defines modern thought. Yet, as Debaise argues, this bifurcation is not confined to abstract propositions or to a worldview; it is enacted through specific gestures and operations that continuously *lets* and even *makes* nature bifurcate. Today, amid environmental devastation and global warming, the limits and catastrophic consequences of a mode of inhabiting the earth grounded in this bifurcation have become painfully evident. A crucial question therefore arises: how can we—those who inherit modern thought—unlearn this toxic habit of thought? How can we learn not to let nature bifurcate?

This talk explores the possibility of unlearning the bifurcation of nature. It examines strategies and techniques for confronting this urgent task by drawing on examples from within and beyond the university, since, for Whitehead, the university was not only the birthplace of this habit of thought but also the institution through which it became entrenched and continues to persist to this day.

~

Melanie Sehgal is Director of Research at the Institute for Basic Research into the History of Philosophy at the University of Wuppertal. She is the author of Eine situierte Metaphysik. Empirismus und Spekulation bei William James und Alfred North Whitehead (Konstanz University Press, 2016) and has published widely on process philosophy, pragmatism, aesthetics, and transdisciplinary practices in the context of a warming planet. Together with Alex Wilkie, she co-edited More-than-Human Aesthetics: Venturing Beyond the Bifurcation of Nature (Bristol University Press, 2024). She is currently preparing a co-edited volume with Martin Mulsow, Das Klima der Philosophie. Die ökologische Krise als Herausforderung für die Philosophie- und Ideengeschichte (Suhrkamp, 2026).

David Bates

On the Catastrophic Origins of Reason

Friday 28.11.2025, 10:15–11:30

As C.S. Peirce explained, in addition to the two normal modes of reasoning—deductive and inductive—there was a third, more mysterious form, namely hypothetical reasoning, which he would later call “abductive.” In this talk, I will trace a line of thought that seeks to explain this kind of rational cognition, that leap into an unknown future in search of the truth. Reading figures such as A. N. Whitehead, René Thom, and Bernard Stiegler, I will show how the catastrophic turn—the appearance of a singularity of thought—is the origin of the most important form of reason, the intuition of a new space of knowledge.

~

David W. Bates is Professor in the Department of Rhetoric at the University of California, Berkeley, an affiliate with the Center for Science, Technology, Medicine and Society, and past Director of the Berkeley Center for New Media. He received his PhD in European History from the University of Chicago. His research and teaching is focused on the relations between technology and cognition, and the history of political and legal thought. His book An Artificial History of Natural Intelligence: Thinking with Machines from Descartes to the Digital Age was published by the University of Chicago Press 2024. He has previously published two books on early modern thought—Enlightenment Aberrations: Error and Revolution in France (Cornell, 2002) and States of War: Enlightenment Origins of the Political (Columbia, 2011)—and edited (with Nima Bassiri) a volume Plasticity and Pathology: On the Formation of the Neural Subject (Fordham, 2015). Other publications include articles on topics such as Cybernetics, Artificial Intelligence, and 20th-century political and legal theory.

Daniel Weizman

The Logic of Bifurcations: Gilles Deleuze Beyond Structuralism

Friday 28.11.2025, 11:45–13:00

Bifurcation appears in Gilles Deleuze's *The Logic of Sense* (1969) under a series of names: nonsense, object = x, the differentiator, the empty square. These refer neither to object nor image, neither to signifier nor signified. They designate what makes sense possible at all—a direction (*sens*) taken that immediately opens onto other directions, other bifurcations.

This is why *The Logic of Sense* is one of Deleuze's most important works before his collaborations with Guattari. It is not only a departure from structuralism in general but from the entire French intellectual constellation dominated by his teacher Jean Hyppolite in the 1950s. It is Deleuze's most profound reflection on bifurcation: how thought itself exits inherited structures by affirming nonsense as the generator of sense, and by letting sense split, veer and diverge.

~

Daniel Weizman is the founder and director of the London School of Continental Philosophy, an independent initiative dedicated to creating a space for rigorous, accessible engagement with contemporary European philosophy outside the traditional university system. He holds a PhD from the Centre for Research in Modern European Philosophy (CRMEP), where his doctoral work focused on Gilles Deleuze. He has taught in adult-education programmes across London, leading face-to-face seminars grounded in close reading and collaborative discussion. His research and teaching span twentieth- and twenty-first-century Continental philosophy, with particular attention to Deleuze, Foucault, Derrida, Badiou and Žižek, and to questions at the intersection of critical theory, aesthetics, and politics.

Donovan Stewart

There is No 'The Incalculable': Deconstruction and the Experience of Institution

Friday 28.11.2025, 14:15–15:30

'The incalculable' is ever-present in critiques of hegemonic modern metaphysics that articulate themselves ontologically: through the rendering of all into a modality of the same, as objects, data, fuel, waste, capital; and politically through increasingly automated systems of control, as what Antoinette Rouvroy and Thomas Berns have described as "algorithmic governmentality". Bernard Stiegler, for one, emphasises 'the incalculable' when arguing for differential bifurcations that transcend an age defined by "disruption". As a figure of radical difference, 'the incalculable', has become a shibboleth to flag an awareness of the dangers posed by totalitarian and increasingly, technofascist rule. And yet, its meaning and role remains opaque. Can and should 'the incalculable' function as an end for politics or as the last word for thinking?

To respond, I turn to Jacques Derrida, whose work popularised the concept and its

relatives: 'alterity', '*a-venir*', 'the other', 'difference', 'aporia', etc. Through a reading of texts by Derrida that culminate in the *Death Penalty Seminars* (1967, 1972, 2015), we see that there 'is' no 'the incalculable' insofar as this word does not describe an entity that could be achieved, deployed, or utilised as a point of orientation or regulative idea, but instead designates only the radical indeterminability that conditions any possibility. And while deconstruction is also a matter of the thematisation of such 'conditions of impossibility', I seek to demonstrate that its real *work*, both theoretical and political, is to be found not in a messianic waiting for an incalculable openness to-come, to for example 'undo the biopolitical machine' as Agamben has demanded, but instead in the relentless labour of *negotiation*, of responsible calculation and institution, continuously inspired by their structural inadequacy. It is with this sense of 'the incalculable' and the fundamental primacy of institution, that we can appreciate Stiegler's late turn to '*bifurcation*' as a timely reevaluation of the very vocation of the humanities 'in disruption'.

~

Donovan Stewart is a lecturer and PhD candidate at the Leuphana University Lüneburg DFG Research Training Group Cultures of Critique and Leiden University Centre for Continental Philosophy (LCCP). His work focuses on the ontological and ethical ramifications of ecological and technological developments for post-Kantian thought, with a concentration on phenomenology and deconstruction. His dissertation, Articulations: Technique and the Metaphysics of Deconstruction, reevaluates the status of philosophical discourse along with the concept of technique in an age of disruption, taking as a guide a concept of 'articulation' developed through readings of 20th and 21st century French and German thought.

Daniel Nemenyi

Cybernetics after Whitehead

Friday 28.11.2025, 15:45–17:00

For many of the early pioneers of computing and cybernetics, Whitehead's pre-WWI collaboration with Bertrand Russell on mathematical logic was seminal: a landmark on the way to inventing logically-programmed computers and digital neural networks. But what of Whitehead's sole-authored philosophy from the 1920s? Using archival material, this paper will trace Whitehead's influence upon Norbert Wiener, the founder of cybernetics, from Wiener's 1913 PhD thesis on the *Principia Mathematica* to his groundbreaking opus *Cybernetics* (1948), and its associated texts. For unlike for Alan Turing, Warren McCulloch and Walter

Pitts, Whitehead and Russel's symbolic logic would be relegated to the margins of Wiener's cybernetics, thereby complicating Martin Heidegger's insistence that "logistics" constitutes the essence of the cybernetic assault on language and truth. Instead, this paper shall discuss the extent to which Whitehead's critique of the bifurcation of nature can be read as a subtext to Wiener's cybernetics, and thereby consider Whitehead's role in the coming bifurcation of an organically-inclined Second Order Cybernetics from a computing-inclined First Order.

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Daniel Nemenyi is a Guest Researcher (Gastwissenschaftler) on the Disruptive Condition research initiative at Leuphana Universität Lüneburg, and an alumni of the Leuphana Institute of Advanced Studies (LIAS). His current research involves a rereading of cybernetics through the ancient Greek figure of the cunning and snaky kubernētēs, or helmsman, after which it was named, an essay on which will be published in the forthcoming collection Digital Revolution as Counter-Revolution, published by b_books. He received his PhD from the Centre for Research in Modern European Philosophy (CRMEP), Kingston University, for his thesis What is an Internet? Norbert Wiener and the Society of Control, whose publication is forthcoming.

THE BIFURCATION OPERATION: FORKING MODERNITY

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