STRUKTURA PRAZNINE
Mednarodni simpozij, 25.–27. februar 2013
Atrij ZRC SAZU,
Novi trg 2, Ljubljana
Slovenija

THE STRUCTURE OF THE VOID
International symposium, 25–27 February 2013
Atrium of the ZRC SAZU,
Novi trg 2, Ljubljana
Slovenia

Monday, Feb 25	**Tuesday, Feb 26**	**Wednesday, Feb 27**
10.30	10.30	10.30
Radovan Stanislav Pejovnik:	Gregor Moder:	Jamila Mascat:
Formal opening	*"Held out into the nothingness of being". Heidegger and the Grim Reaper*	*Why is there nothing rather than something? On Kojève's atheism and wisdom*
11.00	11.45	11.45
Tzu Chien Tho:	Katja Kolšek:	Pietro Bianchi:
Nothing just isn't (what it used to be): the void and structure	*The Double Void in Materialism of Late Althusser, Badiou and Žižek*	*The Lack(anians). Use ans mis-use of a concept between psychoanalysis and science*
12.15	13.00	13.00
Sašo Dolenc:	Henrik Jøker Bjerre:	Samo Tomšič:
Žižek's Interpretation of Quantum Physics	*Nothing Himself Beholds Nothing*	*The structure is the void. Lacan's "hyper-structuralism" between knowledge and politics*
13.30-15.30	14.15-15.30	14.15-15.30
break	*break*	*break*
15.30	15.30	15.30
Matjaž Ličer:	Aleš Bunta:	Bruno Besana:
As Void as it gets: Notions of Ether in Classical Physics and Einstein's Relativity	*Can the Void be thought of only under the Postulate of its Inexsitence?*	*A la place du vide - (the relation between the void, subtraction and the subject in Alain Badiou's work)*
16.45	16.45	16.45

Miha Nemevšek:	Oxana Timofeeva:	Sami Khatib:
Vacuum, Colliders and Origin of Mass	*Imagine there is no Void*	*Fulfillment through Voiding: Walter Benjamin's Messianic Nihilism*
18.00		18.00
Matjaž Vesel:		Mladen Dolar:
Platonism and Copernican Turn		*The atom and the void – from Democritus to Lacan*

Univerza v Ljubljani, Filozofska fakulteta/University of Ljubljana, Faculty of Arts
Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti/Scientific Research Centre of the Slovenian Academy of Sciences and Arts

Organizacijski odbor/Organization Committee
Mladen Dolar, Matjaž Ličer, Aleš Bunta, Sašo Dolenc, Gregor Moder

Vsa predavanja in diskusije bodo potekali v angleščini./All lectures and discussion will be held in English.

MONDAY, 25 FEBRUARY

Feb 25, 10.30
Formal Opening of the International Symposium
Radovan Stanislav Pejovnik, Rector of the University of Ljubljana

Feb 25, 11.00
Nothing just isn't (what it used to be): the void and structure
Tzuchien Tho, CIEPFC

Alain Badiou inherited a series of concepts in the late 60's that manifest a similar sort of argumentative strategy. From Neo-Kantianism, French epistemology, Hegelianism and structuralism, there were a number of different figures of the void, the nothing, indeed the "not", all of which stood in as a reified repository for the undetermined and contingent (the virtual), the not-yet (the new in history), the horizon of determination and knowledge (regulative judgment). By looking at how Badiou refuted this construal of the problem of the void (the nothing and the like) in the late 60's, I will demonstrate how these initial works led to his arguments concerning the void in the 1980's provided a real alternative to those that he inherited. In turn, understanding Badiou's rejection from this late 60's context of treating the notion of the void sheds light on the meaning of his "mathematical ontology" through set theory and allows us to evaluate his larger philosophical project from a different historical vantage.

Feb 25, 12.15
Žižek's Interpretation of Quantum Physics
Sašo Dolenc, Faculty of Arts, University of Ljubljana

Žižek's understanding of quantum physics as presented in his latest book *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* will be discussed. It will be investigated to what extent his interpretation could be important for science. A new way of presenting his specific philosophical treatment of modern physics will be offered. In addition how all this is connected to the problem of the structure of the void will be explained.

Feb 25, 15.30
As void as it gets: the notions of ether in classical physics and Einstein's relativity
Matjaž Ličer, Scientific Research Centre of the Slovenian Academy of Sciences and Arts

Newton's universal gravity brought about a need for a physical interpretation of action at a distance over an empty space. The notion of ether was introduced into classical physics to allow a mechanistic representation of classical fields of force. Maxwell-Lorentz interpretation of electrodynamics, based on the notion of ether, has however led to a contradiction with the fundamentals of Newtonian mechanics. It took the special theory of relativity and its dismissal of the notion of ether to resolve this profound conflict in a theoretically consistent way. The generalization of the special theory of relativity, the general theory of relativity, has however led Albert Einstein to reintroduce the notion of a new, "relativistic ether" to signify an instrinsic dynamic structure of space-time.

Feb 25, 16.45
Vacuum, Colliders and Origin of Mass
Miha Nemevšek, The Abdus Salam International Centre for Theoretical Physics

Quantum field theory provides a theoretical framework for understanding the interactions and

characteristics of elementary particles. They are described as local excitations above the state of lowest energy, the vacuum. For most fields, the average value of the ground state is zero, the only exception being a scalar field, which may develop a global non-zero vacuum expectation value. This is understood as a consequence of spontaneous symmetry breaking, the Higgs mechanism. In the context of the Standard Model of elementary particles, such breaking leads to a dynamical explanation of the origin of masses for nearly all known particles, which can be tested by observing collisions of particles at high energies. A recent discovery of a new boson at the Large Hadron Collider sets the stage for verification of this concept and highlights the need for understanding the remaining missing pieces, such as the unknown nature and the origin of neutrino mass, a key issue in the centre of current scientific interest.

Feb 25, 18.00

Platonism and Copernican Revolution

Matjaž Vesel, Scientific Research Centre of the Slovenian Academy of Sciences and Arts

One of the most important questions in the history of early modern science which is still not completely explained is how Copernicus arrived at heliocentrism. What was the question for which heliocentrism was the answer? How and why did he become a Copernican? It is my thesis that Copernicus' critical attitude towards the state of astronomy, which ultimately resulted in his geokinetism and heliocentric arrangement of the planetary orbs, was founded upon Plato's views (1) on the order and arrangement of the universe created by the supreme Artisan, and (2) on the status and role of astronomy in discovering this order (as developed in his dialogues, mainly Laws, Epinomis, Republic and Timaeus) and then subsequently repeated and reformulated by different Platonists and Plato's commentators. I believe that Copernicus' Platonism explains all the most fundamental aspects of his project. It brings unity and coherence to his work and links otherwise seemingly completely unrelated issues, such as the equant problem and the problem of the order of the planetary spheres, into consistent philosophy. Those Platonist conceptions not only played a negative role in the criticism of Ptolemaic astronomy but were at the same time to a certain extent instrumental in Copernicus' discovery of heliocentric cosmology. Copernicus' Platonist conceptions also provide historical and contextual background to his achievement, that is, it explains the nature of what I believe to be a genuine Copernican revolution.

TUESDAY, 26 FEBRUARY

Feb 26, 10.30

"Held out into the nothingness of being". Heidegger and the Grim Reaper

Gregor Moder, Faculty of Arts, University of Ljubljana

The paper presents a reading of *Being and Time* that challenges the widely accepted image of Heidegger as a philosopher of conservative, moralist, and existentialist overtones. The core concept at stake is the concept of death. While almost every reader agrees that it is an ambiguous concept which should be understood as a fundamental existential disposition of Dasein, the majority of readers nevertheless reduce it to a tragic question of facing personal, individual mortality. To counter this, a radical ontological reading is attempted, one that implies, to an extent, also a reading of Heidegger of the fundamental ontology against Heidegger of a kind of "existentialist theology". Consistently, the author pursues the idea of reading the key concepts like angst, end, death and time by analyzing them as concepts that enable us to see the nothingness, the void at the core of existence. The conclusion of the paper underscores this formal ontological orientation of the book with the help of two little known concepts developed by Franz Brentano in the course of his studies of the continuum.

Feb 26, 11.45

The Double Void in Materialism of Late Althusser, Badiou and Žižek

Katja Kolšek, University of Primorska, Science and Research Centre of Koper

In this paper I will focus on the void as always already double as the crucial feature of the Althusser's late materialism of encounter (or, the aleatory materialism). In doing so I will show the possible reading of Althusser's own attempt of surpassing the inner limits of the structuralist causality in vain of the materialist dialectic of Alain Badiou's and his theory of the split subject and the topology of the torsion (Theory of the Subject). I will attempt to draw attention to the materialist reading of the Hegelian dialectic in Slavoj Žižek's latest work, Less than Nothing: Hegel and the Shadow of Dialectical Materialism, as the culmination of the recent return to materialism in philosophy, in order to sketch out a line of the materialist thinking of the relation between the Void and the Real in Althusser, Badiou and Žižek.

Feb 26, 13.00

Nothing Himself Beholds Nothing

Henrik Jøker Bjerre, University of Aarhus

Friedrich Schelling's Weltalter contains nothing less than a vision of God's condition before creation. At that time, so it seems, there was nothing, but a structured nothing. The structure of this nothing, however, peculiarly resembles a structure that pertains to human freedom as well. Human has a "Mitt-Wissenschaft" of creation, as Schelling puts it. Is his ontology therefore anthropomorphic, and if so – is that a problem?

Feb 26, 15.30

Can the Void be thought of only under the Postulate of its Inexistence?

Aleš Bunta, Scientific Research Centre of the Slovenian Academy of Sciences and Arts

What is to be considered one of the major questions in the history of philosophy, namely, the question whether the void existed or not, clearly seems to have become redundant; for nothing else the void is today perceived as both, the most massive presence in the Universe, as well as the necessary element of matter itself. We'll, nevertheless, try to show that this same

questioning of the shear existential status of the void – in a modified form – still presents one of the major issues of contemporary philosophy, while intertwining the philosophy of nature with the fundamental question of the ontological difference. At the same time we'll try to discern the logic beneath one of the seemingly strangest cross-historical alliances in the present philosophy. We'll namely try to explain why Badiou, the major contemporary philosopher of the void, swears allegiance to Aristotle, who claims the void is not, while his arch-rival Deleuze, being considered the most anti-void philosopher of the recent time, actually supports atomists, who claimed that the void necessarily exists.

Feb 26, 16.45

Imagine there is no void

Oxana Timofeeva, Institute of Philosophy, Russian Academy of Science

The paper develops a question of materialist thinking of subjectivity, considered in terms of borders and bordering, in relation to the concept of the void as nothing which does not have any internal structure, but actively produces an external ones and thus introduces a subjective dimension of matter called nature, from elementary particles to human animality.

WEDNESDAY, 27 FEBRUARY

Feb 27, 10.30

Why is there nothing rather than something? On Kojève's atheism and wisdom

Jamila Mascat, University La Sapienza, Rome

While Kojève's major philosophical notions of Man and Wisdom rely on the ontological void provoked by the very absence of God, his early writing on "L'athéisme" (1931) sketches out a peculiar anthropological model that combines the atheistic void with the theistic intuition of God's existence. Kojève seems to reactivate such a model in his late "Système du Savoir" (1952-56) where the Wise Man becoming God at the end of history – a move that epitomizes the antithesis of Christian kenosis – announces the adventure of wisdom conceived as a discursive totality of meaning without a subject. Elaborating on the relationship between wisdom and theism, this paper aims at providing a metaphysical and non-anthropological access to Kojève's philosophy.

Feb 27, 11.45

The Lack(anians). Use and mis-use of a concept between psychoanalysis and science

Pietro Biancchi, University of Udine

The concept of *lack* in Lacan can be understood as a clinical concept and being one of the fundamental conditions of the *parlêtre* and one of the privilege ways in order to conceptualize subjectivity as a desiring *manque à être*. As we can see from the debate occurred during the years of the *Cahiers pour l'analyse* though, lack can also acquire a more formalized meaning: in Jacques-Alain Miller seminal article *La suture: éléments pour une logique du signifiant*published in 1966, it becomes a building block in order to address "the relation of the subject to the chain of its discourse." Miller believes that *lack* serves the purpose to conceptually ground the act of cancellation that the discourse of science would operate on the subject of the unconscious; an argument that will be echoed in Lacan's text *La Science et la vérité* of the same year. The consequences of such an understanding of lack will be extremely burdensome in the way Lacanian psychoanalysis will address its relationship with science for many years until nowadays. In this intervention we will discuss the importance of such a concept for psychoanalysis and why it is a symptomatic point through which articulating the relationship between psychoanalysis and science.

Feb 27, 13.00

The structure is the void. Lacan's "hyper-structuralism" between knowledge and politics

Samo Tomšič, Humboldt University in Berlin

The paper will trace the transformation of Lacan's structuralism through the progressive role of topology in his elaboration of structure. This topological reference is not without ambiguities, which concern notably the imaginary representation of the void (e.g. "hole"). The paper will therefore approach the problematic through its symbolic representation, the notion of "non-all", with which Lacan attempted to construct a "weak logic, but still strong enough to leave you a bit of incompleteness" (S. XVII, p. 207). The quote is taken from Lacan's notorious speech to the revolutionary students at the Vincennes-University in 1969, which places the problematic of the void in the intersection of epistemology and politics. The second part of my paper will be dedicated to this connection.

Feb 27, 15.30

A la place du vide – (the relation between the void, subtraction and the subject in Alain Badiou's work)

Bruno Bessana, Institute for Cultural Inquiry in Berlin

In this paper I will try to show – via a specific example that largerly relies on Badiou's reading of the Epicurean thought – how the reintroduction of the void within the conceptual space of philosophy produces a different understanding of the subject. Namely the latter, liberated from any transcendental function, from any anthropologism and from any externalism, is finally understood as that which cannot be reduced to any category of objects, as a fracture in the consistency of the place in which it appears.

Feb 27, 16.45

Fulfillment through Voiding: Walter Benjamin's Messianic Nihilism

Sami Khatib, Free University of Berlin

In his studies on Schlegel and early Romanticism, Benjamin introduced the notion of "formal irony," which "presents a paradoxical venture: through demolition to continue building on the formation." Formal irony does not present a "self-annihilating nothing" (Hegel), attached to ironic boundlessness of the Romantic critic, but designates an objective movement within the work of art itself. Construction through destruction, forming through deforming, enhancement through reduction, fulfillment through voiding – these paradoxical formulae contain the aesthetic method of Benjamin's messianic nihilism. My paper will attempt to unfold this structure with regard to its political and historical-philosophical implications.

Feb 27, 18.00

The atom and the void – from Democritus to Lacan

Mladen Dolar, Faculty of Arts, University of Ljubljana

The ancient atomists were the first to introduce the void as the constitutive mark of the structure of the universe. They turned the relation between atoms and the void separating them into the matrix of being, thus positing the void as the key object of philosophical reflection. The paper will take a closer look at the crucial conceptual pairs that are thus introduced: one/zero, being/non-being, then scrutinize the way that particularly Hegel turned this insight into the basic feature of dialectics, and finish by considering the unexpected way in which Lacan used Democritus as one of the sources for the 'ontological stance' of psychoanalysis.

The structure of the void

The structure of the void is the title of the three-year research project funded by the Slovene national research agency. It is conceived as an interdisciplinary project whose aim is to bring together the philosophical tradition of reflections on the void, from antiquity up to its contemporary developments, and on the other hand the problem of the void as it is posed in science, both historically and particularly in its present stage. There is the full recognition of the fact that the two languages, coming from the philosophical and the scientific side, are incommensurate, and the project doesn't cater for any easy synthesis nor does it consent to the dialogue of the deaf. New questions about defining the void are posed by science itself, and the new ways in which philosophy can treat this one of its ancient problems can be brought to the point of a mutual clarification.

The proposed colloquium gathers predominantly philosophers, but the scientific concerns will also be given attention and a platform. The starting point can be asking the simple question 'What, if anything, is the void?' The wording points to the essential ambiguity, or the paradox, for the void is precisely not anything, but has to be accounted for as something, as a locus not simply empty, but in its emptiness generative of 'something', indeed of 'being' and universe. Looking at this paradox from the side of science the physicist John Wheeler famously put it: "No point is more central than this, that empty space is not empty. It is the seat of the most violent physics." Two monumental testaments to Wheeler's point are the two greatest scientific theories of 20th century: theory of relativity and quantum field theory. These theories have fundamentally transformed our view of the universe and they have done so precisely by substantially altering our notion of the most fundamental fabric of physical reality - the empty space.

The question has haunted the history of philosophy since the time of ancient atomists (Democritus and later Epicurus and Lucretius) who have been the first to claim that the void is endowed with a structuring function, that it has to be put on the par with the atoms as the indivisible particles of being and that it may well detain the key to the structure of the universe. The question of clinamen, the inherent swerving of the atoms, has to be addressed in its relation to the void and it produces a strange resonance with the questions posed by modern physics. Given that the ancient atomism was the first appearance of materialism in the history of philosophy this entails the further question of the ways that the materialist stance in philosophy, throughout its history to the present day, has to take into account the void as the key element.

In contrast to ancient atomists, Aristotle, and the entire Aristotelian ontological paradigm after him, was largely trying to prove that the void did not exist, that it had no place. Still, when he defined the void as "place with nothing in it" (*Physics* 213b30), this formula brought together two concepts, *place* and *nothing*, which constitute paradigmatic objects of study in "physics" and metaphysics and produce a tension within the Aristotelian conceptual framework. The Aristotelian 'expulsion' of the void was at odds with the Christian tradition, since prohibiting the existence of 'vacuum' on the one hand implied limiting God's absolute power, which was unacceptable just as the existence of vacuum within Aristotelian natural philosophy, and on the other hand it brought up the question of *creatio ex nihilo* on which the Christian metaphysics was premised, hence as the void on which the emergence of universe has to be assessed.

To bring this schematic brief survey to the modern times, the void was one of the key concepts in the philosophy of the 19th and 20th centuries (but one should be careful to make conceptual distinctions

between nothing, void, lack, emptiness and zero – the terms may widely differ in different authors). To mention some key names: Democritus' model, based on the division between the element and the void, acquired a crucial strategic meaning with Hegel who saw in it the basic insight on which the dialectic theory can rest, thus presenting the matrix of dialectics. In his doctoral dissertation, the young Karl Marx contrasted Democritus' and Epicurus' theories of nature, which can shed light on the bases of modern materialism, going back to the early assumptions about the void. In a starkly different vein, Heidegger, in his famous essay *The Thing* (*Das Ding*), posited the void – seen as the essence of *the thing* – as the key to his opposition to scientific thought, which according to him operates with *objects*, thus unable to contemplate the void. It should be noted that Heidegger's "antiscientific stance" is not primarily directed towards science itself, but towards its "metaphysical essence". Finally, Alain Badiou's central ontological point, which in some ways echoes Heidegger's critique of metaphysics, is the pure multiplicity of being itself. The One does not exist on the level of *being*, only on the level of *the presentation* of being, i.e. as an operation. As predicates are precisely the operators of the subsumption of a certain multiplicity under a certain One, we cannot talk of individual objects on the level of being; instead, we can only claim that being as being is the pure multiplicity, a multiplicity of multiplicities. Badiou designates this infinitely fragmented structure of multiplicities *inconsistent multiplicity – the void*. The Badiouean void is thus not the void as in the hollow *absence* of being, but being itself, free of all predication. – These are just some landmarks of history that yet has to be written.

On the side of contemporary science, the emergence of relativistic quantum mechanics made it clear that physical vacuum could not be truly empty. Every quantum system possesses fluctuations in the quantum field and the energy they yield (i.e. zeropoint energy); otherwise the energy of the system would be precisely determined (it would equal zero), which would violate the uncertainty principle. The measurement of zeropoint energy is regarded as the first experimental confirmation of the then forming quantum theory. Through the quantum uncertainty principle on the one hand and the relativistic equivalence of mass and energy on the other, physical vacuum *evolved from the passive void into an endlessly complex and dynamic environment*. A similar process can be traced in the curious ways of the notion of ether in Einstein's relativity: completely abandoning the concept at first Einstein was forced to reintroduce it 10 years later as it became clear that even the most empty of spaces has an intrinsic structure that mediates what we perceive as gravity. Thus the physical study of the empty space today stands as one of the most basic components of the contemporary scientific understanding of the world.

These are just some very rough cues that could serve as the starting point to address the question 'What, if anything, is the void?'