Monday, August 22 <sup>nd</sup>		
14:00		
- 17:00	Registration	
	Opening, 1 st Plenary:	
19:00 _ 21:00	Goethes Theory of Colour Reconsidered: New Experiments on the Symmetry of Spectral Phenomena	
	Prof. Dr. Joh. Grebe-Ellis, Bergische Universität Wuppertal	

Tuesday, August 23 <sup>rd</sup>			
	Room EB 161	Room EB 162	Room EB 163
09:00 _ 09:30	Husserl and Science Education (Lydia Murmann)	The Nature of Biological Science: What can Biology Lessons contribute to Science as Culture? (Jörg Zabel)	Science dynamics at the university museum. Teaching the nature of science at the crossroads of the history of science and the classroom (Jelle De Schrijver)
09:30 _ 10:00	The atlas movies channel on YouTube: Non-experts give form, shape and sound to abstract science concepts (Ana Leci, Fanny Seroglou)	Practical experience of some ways by which integrated history and philosophy of medicine can be valuable to medical training (Nicholas Binney)	Performative Dimensions of the Socially Inclusive Science Centre (Lydia Schulze Heuling)
10:00 _ 10:30	How can we inspire students emotionally in physics classes by using the history of science? (Lea Valentina Lavrik, Meir Vladimir Shunyakov)	How to implement 100 year old American thinking in modern European science education? (Morten Rask Petersen)	Different Uses of Complex Numbers in Physics (Ricardo Karam)
10:30 - 11:00	Coffee		
11:00 - 11:30	The Challenge of Teaching Science as a Cultural Activity: New Directions for NOS (Arne Dittmer, Agustin Aduriz- Bravo)	Re-tracing the transformation of research instruments for teaching purposes: the circulation of the cloud chamber as a teaching apparatus during the twentieth century (Eugenio Bertozzi)	"And yet it does not move!" Fostering students' rooting in science education (Edvin Østergaard)
11:30	The Challenge of Teaching Science as a Cultural Activity:	H.C. Ørsted, Science and "Dannelse" in the early 19th	Teachers' Beliefs about argumentation - A comparison in
12:00	Which Directions for NOS? (Agustin Aduriz-Bravo)	century Relevant for educational thinking today?	the Context of the disciplinary cultures of science and language



		(Level Jalue & Ellekeels)	- durantina
		(Jens Jakob Ellebæk)	education
			(Julia Schwanewedel, Finja
			Grospietsch)
12:00	Dialogue and Debate in	The language and underlying	Teaching science in second chance
_	<b>Biological Education</b>	culture of Error: in the history of	schools: Two case studies inspired
12:30	(Florian Kolbinger)	Science and in today's classrooms	by philosophy of science
	(	(Susanne Heinicke)	(Anna Tzampazi)
12:30	Lunch		
-	Lunch		
14:00			
14:00	Scientific proficiency through philosophical literacy		
_ 15:00	Hanne Andersen (University of Copenhagen)		
15:00			8,
_	Coffee		
15:30			
	Room EB 161	Room EB 162	Room EB 163
		Room EB 162 Astronomy and History of Science	Room EB 163 Making Environments for Learning:
15:30	Selective Realism in the History		
15:30 _	Selective Realism in the History of Modern Science	Astronomy and History of Science	Making Environments for Learning:
	Selective Realism in the History	Astronomy and History of Science in European Context - a Network	Making Environments for Learning: Recreating in the Space and Vision
15:30 _	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca)	Astronomy and History of Science in European Context - a Network for Edutainment	Making Environments for Learning: Recreating in the Space and Vision of a Century ago
15:30 _	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt)	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi)
15:30 _ 16:00	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture?
15:30 _ 16:00	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science education	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi)
15:30 - 16:00 -	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs Egyptian desert	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture?
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15:30 - 16:00 16:00 - 16:30	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science education (Lena Hansson)	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs Egyptian desert (Ekaterina Teteleva, Sergey	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture? (Martin Panusch) History and Philosophy of Science
15:30 - 16:00 -	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science education (Lena Hansson) Moral Reasoning in the Science	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs Egyptian desert (Ekaterina Teteleva, Sergey Bogdanov) Teachers' enactment approaches to instructional materials based on	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture? (Martin Panusch) History and Philosophy of Science for Citizenship:
15:30 - 16:00 16:00 - 16:30 16:30 -	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science education (Lena Hansson) Moral Reasoning in the Science Classroom - Evaluation of a Pre-	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs Egyptian desert (Ekaterina Teteleva, Sergey Bogdanov) Teachers' enactment approaches to	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture? (Martin Panusch) History and Philosophy of Science for Citizenship: The case of "Life of Galileo" by
15:30 - 16:00 16:00 - 16:30	Selective Realism in the History of Modern Science (Prof. Alberto Cordero-Lecca) The relevance of worldview perspectives in science education (Lena Hansson) Moral Reasoning in the Science Classroom - Evaluation of a Pre- Service Teacher Training	Astronomy and History of Science in European Context - a Network for Edutainment (Gudrun Wolfschmidt) Students' contest with Eratosthenes: boreal lake vs Egyptian desert (Ekaterina Teteleva, Sergey Bogdanov) Teachers' enactment approaches to instructional materials based on	Making Environments for Learning: Recreating in the Space and Vision of a Century ago (Elizabeth Cavicchi) Just another Christmas Lecture? (Martin Panusch) History and Philosophy of Science for Citizenship:

	Wednesday, August 24 <sup>th</sup>			
	Room EB 161	Room EB 162	Room EB 163	
09:00 _ 09:30	Nature of science instruction to prospective chemistry teachers: What has changed after 5 years? (Oya Aglarci)	Ontology and Diagrams: the mathematical reasoning in Newton's Principia (Pierre Boulos)	Students' Reasons for Preferring Teleological or Causal Explanations (Frederike Trommler, Helge Gresch, Marcus Hammann)	
09:30 _ 10:00	History, Philosophy and the study of nature of science: reflections for science lessons in multicultural schools (Haira Gandolfi, Shirley Simon)	Exposing Color: Newton´s Theory through Maxwell´s Lens (Valentina Roberti, Giulio Peruzzi)	Collaboration and Communication - forgotten aspects when using HOS in biology classrooms? (Ami Friedman)	
10:00 - 10:30	Methodological differences between science and pseudoscience: the case of	The changing role of Newton's fits in 18th century: social and cultural factors for the rejection of a	Teaching models of electric current in upper secondary school physics: The role of macroscopic	



	crystals from the standpoint of 8th graders (Duygu Metin, Jale Cakiroglu, Gulsen Leblebicioglu)	<b>theory</b> (Breno Moura)	and microscopic models in teaching electric current (Terhi Mäntylä, Ismo Koponen)
10:30 - 11:00	Coffee		
11:00 - 11:30	Teachers´conceptualization of science education and their usage of history of science (Çiçek Dilek Bakanay, Mustafa Çakir)	The epidemology of representations as an integrative framework for the history of science and science education (Stefaan Blancke, Thom Scott- Phillips, Johan Braeckman)	A Framework for Analyzing the Image of the Scientist Portrayed through Educational Resources (Hagop Yacoubian, Taline Mardirossian, Layan Al-Khatib)
11:30 - 12:00	Exploring the influence of pre- service science teachers' personal epistemologies on their acceptance or rejection of Education Studies (Liam Guilfoyle, Sibel Erduran, Orla McCormack)	History of Science in nowadays Teaching Science. Levels of Context, Illustrations and Framework (Marina Castells)	Thinking about everyday myths. Case studies in biology class. (Britta Lübke, Ulrich Gebhard)
12:00		Cultural Theory of Risk and the Psychometrick Paradigm - Perception of risk in the science	Believe in, believe about: Which question do polls about evolution really ask, and why
12:30		classroom (Julia Hansen, Helge Gresch, Marcus Hammann)	<b>does it matter?</b> (Kostas Kampourakis, Kevin McCain)
12:30 _	Lunch		
14:00			
14:00	Looking Through the Kaleidoscope		
15:00	Iwan Rh	ys Morus (Aberystwyth U	niversity)
15:00 _	Coffee		
15:30	Room EB 161	Doom EP 163	Room EB 163
	An Investigation of Preservice	Room EB 162 Socio-cultural aspects of science in	Ørsted, Humboldt, Gauss,
15:30 -	Science Teachers' Views of the Epistemic, Cognitive and Social	the science classroom: teachers' perspectives	Weber, Schumacher, and magnetism, and narratives in the
16:00	Aims and Values of Science (Regina Kelly, Sibel Erduran)	(Lotta Leden, Lena Hansson, Andreas Redfors)	classroom (Claus Michelsen)
16:00 _	Towards defining and assessing genetic determinism	Pseudoscience as a context for teaching and assessing NOS	Historical contextualisation of Hooke's Law in Education
16:30	(Tim Heemann, Marcus Hammann)	(Mario Kötter)	(Sabina Muminovic)
16:30 _	The intuitive new thinking in science through Beneke and Mach: Mathematical	Teaching Nature of Science to Teachers	Enriching thermodynamic teaching and learning with
17:00	Intuitionism and "New Physics" (Hayo Siemsen)	(Douglas Allchin, Eduardo Cortez, Maria Elice Prestes)	Holton's tapestry (Paulo Mauricio)



19.00 -22.00

**Poster Session** 

at Phänomenta

	Thursday, August 25 <sup>th</sup>		
	Room EB 161	Room EB 162	
09:00 _ 09:30	The Cultural Argument for Understanding Nature of Science - What is behind it? (Prof. Dr. Reiners)	Measuring attitudes towards evolution as related to religious faith and dualistic thinking (Anna Beniermann, Dittmar Graf)	
09:30 - 10:00	Using the History of Chemistry to Teach the Nature of Scientific Laws and Theories (Karl Marniok)	Conflicting Interpretation of Scientific Pedagogy (Arthur Galamba)	
10:00 - 10:30	"Creating Creativity": Improving Pre-service Teachers' Conceptions about Creativity in Chemistry (Markus Bliersbach)	Issues of intercultural competence in Swedish science education (Oleg Popov)	
10:30 - 11:00	Coffee		
11:00 - 11:30	Plenty of room? Approaching the field of nanotechnology in senior science classes in Germany (Andreas Junk)	Learning Science as Cultural Activity: Delaying Specialization, Educating Citizens Barbara A. McMillan	
11:30 _ 12:00	Story Telling with teachers - Experiences and Perspectives (Peter Heering)	Fostering students' Neuroscience Literacy by critically reflecting their intuitive beliefs (Alexander Bergmann, Jörg Zabel)	



International History, Philosophy, and Science Teaching Group