

Time	Sun. 19.09.	Mon. 20.09.	Tue. 21.09.	Wed. 22.09.	Time	
09:30	<p><b>“On the Generalization of Newton’s Experimentum Crucis”</b></p> <p>Lichthof der Humboldt Universität zu Berlin Unter den Linden 6 10099 Berlin</p> <p><i>Workshop Schedule</i></p> <p>19.-22.09.2010</p> <p>Stand: 10.09.2010 Änderungen vorbehalten</p> <p><b>Arrival &amp; Registration from 17:00 in the conference office at the Lichthof</b></p> <p><b>Welcoming:</b> Oliver Benson, HU Berlin <b>Introduction:</b> Olaf L. Müller, Berlin</p>	<p>“Die Spiegelspaltblende – optische Lösung eines mechanischen Problems” <b>Kommentar: J.P. Meyn,</b> Discussion</p>	<p>“Experimentum crucis – Mehrfachanwendung eines Spektraloperators” <b>Kommentar: W. Sommer</b> Discussion</p>	<p>“Optische Bedingungen monochromatischer Bilder” <b>Kommentar: L. -H. Schön,</b> Discussion</p>	09:30	
10:30		Coffee break			10:30	
11:00		<p>Experimentum crucis – Experimentum lucis <b>Alan Shapiro, Minnesota</b></p>	<p>Complementarity of light and quantum optics <b>Martin Wilkens, Potsdam</b></p>	<p><b>Round Table Discussion:</b> H. Bortoft, Norfolk, T. Holtmark, Olso; D. Hyder, Ottawa, M. Jackson, New York, P. Sällström, Järna; D. Sepper, Dallas; O. Müller, I. Nussbaumer, Wien; F. Steinle, Berlin, u.a.</p>		11:00
11:30		<p>Newton in Greenland. A complementary version of Newton's experimentum crucis <b>Olaf L. Müller, Berlin</b></p>	<p>The spectral composition of "darkness" in space and time ... <b>Wolfgang Sandner, Berlin</b></p>			
12:00		Coffee break				
12:15		<p><b>Commentary: Thomas Schmidt, Berlin,</b> Discussion</p>		<p><b>Commentary: Gert-Ludwig Ingold, Augsburg,</b> Discussion</p>	<p><b>Closing Session</b></p>	
13:00					13:00	
16:00		<p>The debate about Newton’s experimentum crucis <b>Gabor Zemplen, Budapest</b></p>	<p>Methodological Issues regarding the experimentum crucis <b>Frederick Amrine, Michigan</b></p>	<p>Workshop language is <b>English</b> (Lectures, Commentaries &amp; Discussions) and <b>German</b> (Experimental Presentations &amp; Commentaries)</p>		16:00
16:30		<p>Goethe’s inversion of the spectrum and the experimentum crucis: a brief history <b>Friedrich Steinle, Berlin</b></p>	<p>Light, Causality and Temporal Asymmetry <b>David Hyder, Ottawa</b></p>			
17:00		Coffee break				
17:30	<p><b>Commentary: Neil Ribe, Paris</b> Discussion</p>		<p><b>Commentary: Henri Bortoft, Norfolk,</b> Discussion</p>	<p>Verantwortlich für die Planung: Prof. Dr. Johannes Grebe-Ellis Prof. Dr. Olaf Müller Prof. Dr. Friedrich Steinle</p>	17:30	
19:00	Dinner break				18:30	
20:00	<p><b>Experimental Presentation I</b> Eigenschaften komplementärer Spektren J. Grebe-Ellis &amp; M.Rang</p>	<p><b>Experimental Presentation II</b> Das invertierte experimentum crucis J. Grebe-Ellis &amp; M. Rang, Lüneburg</p>	<p><b>Experimental Presentation III</b> Monochromatische Bilder J. Grebe-Ellis &amp; M. Rang, Lüneburg</p>		19:30	
21:00				21:00		

## Speakers:

### Welcoming

Prof. Dr. Oliver Benson, Director of the Department of Physics, Humboldt-Universität zu Berlin

### Physics

Dr. Henri Bortoft, Norfolk, UK

Prof. Dr. Torger Holtsmark, Oslo, Norway

Prof. Dr. Gert-Ludwig Ingold, Universität Augsburg

Prof. Dr. Wolfgang Sandner, Max Born Institut Berlin

Dr. Pehr Sällström, Järna, Sweden

Prof. Dr. Martin Wilkens, Universität Potsdam

*Commentary part to lecture VII + VIII*

*Panel*

*Commentary part to lecture V + VI*

**Lecture VI:** *The spectral composition of "darkness" in space and time: Quantum Electrodynamics, Babinet's theorem and the physics of ultrashort pulses*

*Panel*

**Lecture V:** *Complementarity of light and quantum optics*

### Physics Education

Prof. Dr. Johannes Grebe-Ellis, Leuphana Universität Lüneburg

Prof. Dr. Jan-Peter Meyn, Universität Erlangen

Dipl.-Phys. Matthias Rang, Lüneburg

Prof. Dr. Lutz-Helmut Schön, Humboldt-Universität zu Berlin

Prof. Dr. Wilfried Sommer, Alanus Hochschule Alfter

*Experimental Presentations: Properties of complementary spectra and the inverted experimentum crucis*

*Commentary part to Experimental presentation I*

*Experimental presentations: Properties of complementary spectra ...*

*Commentary part to Experimental presentation II*

*Commentary part to Experimental presentation III*

### Philosophy

Prof. Dr. Frederick Amrine, University of Michigan, USA

Prof. Dr. David Hyder, University of Ottawa, Canada

Prof. Dr. Olaf L. Müller, Humboldt-Universität zu Berlin

Prof. Dr. Thomas Schmidt, Humboldt-Universität zu Berlin

**Lecture VII:** *Methodological Issues regarding the experimentum crucis*

**Lecture VIII:** *Light, Causality and Temporal Asymmetry*

**Lecture II:** *Newton in Greenland. A complementary version of Newton's experimentum crucis*

*Commentary part to lecture I + II*

### History of Science

Prof. Dr. Myles Jackson, New York University, USA

Prof. Dr. Neil Ribe, CNRS, France

Prof. Dr. Dennis Sepper, University of Dallas, USA

Prof. Dr. Alan Shapiro, University of Minnesota, USA

Prof. Dr. Friedrich Steinle, Technische Universität Berlin

Prof. Dr. Gabor Zemplén, University of Budapest, Hungary

*Panel*

*Commentary part to lecture III + IV*

*Panel*

**Lecture I:** *Experimentum crucis – Experimentum lucis*

**Lecture IV:** *Goethe's inversion of the spectrum and the experimentum crucis: a brief history*

**Lecture III:** *The debate about Newton's experimentum crucis*