History of Physics Division
Fachverband Geschichte der Physik (GP)

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Overview of Invited Talks and Sessions

(Lecture hall KH 02.019)

Plenary Talk of the History of Physics Division

PV II	Mon	11:00–11:45	AudiMax	**Why the Invention of the World Wide Web was no Coincidence: Scientific Culture and Technological Innovation at CERN, 1972-1991** — •Barbara Hof

Invited Talks

GP 1.3	Mon	15:00–15:30	KH 02.019	**Flucht oder Tod – das Schicksal verfolgter Mitglieder der DPG im Nationalsozialismus** — •Stefan L. Wolff
GP 4.1	Tue	16:15–17:15	KH 02.019	**Scientific Instruments and the Evolution of Experimental Volcanology: Insights from Mount Etna** — •Valentina Roberti

Sessions

GP 1.1–1.3	Mon	13:45–15:30	KH 02.019	**Opening Session: History of Physics within the DPG**
GP 2.1–2.4	Mon	16:15–18:15	KH 02.019	**History of Theoretical Physics**
GP 3.1–3.2	Tue	11:00–12:00	KH 02.019	**Particles in Practice**
GP 4.1–4.3	Tue	16:15–18:15	KH 02.019	**Instruments and Measurement**
GP 5	Tue	18:30–19:30	KH 02.019	**Members' Assembly**
GP 6.1–6.3	Wed	11:00–12:30	KH 02.019	**Physics and People**
GP 7.1–7.4	Wed	13:45–15:45	KH 02.019	**Practices and Experiments**

Members' Assembly of the History of Physics Division

Tuesday 19:00–20:00 Room KH 02.019

Dinner for Early Career Scholars

Monday 19:00
Contact: Dr. Julia Bloemer (julia-bloemer@uni-flensburg.de)

Joint Dinner of the History of Physics Division

Tuesday after General Assembly

GP 1: Opening Session: History of Physics within the DPG

Time: Monday 13:45–15:30 Location: KH 02.019

Welcome to Conference

GP 1.1 Mon 14:00 KH 02.019

Das Archiv der DPG - Rückblick, Gegenwart und Ausblick — •Ralf Hahn — DPG Archive, Berlin, Germany

Das Archiv der DPG feiert im April 2026 sein dreißigjähriges Bestehen. Es wird ein Überblick auf den damaligen Zustand in der Gründungsphase gegeben sowie die weitere Entwicklung bis zum heutigen Tage skizziert. Illustriert werden die Ausführungen durch zahlreiche Abbildungen herausragender Archivalien, die für die Geschichte der DPG eine besondere Bedeutung haben.

GP 1.2 Mon 14:30 KH 02.019

Physikgeschichte für Physiker. Erfahrungen aus dem Quantenjahr — •Arne Schirrmacher — Humboldt-Universität, Berlin, Germany

Wie jede Forschungsrichtung wendet sich auch die Physikgeschichte in der Regel an jene, die sich damit professionell beschäftigen. Entsprechend findet die Diskussion zur aktuellen Forschung in eigenen Zeitschriften, auf dedizierte Konferenzen und in speziellen Netzwerken statt. Physikhistorische Fachverbände innerhalb von Physikalischen Gesellschaften verstehen es aber zudem als ihre Aufgabe, die Geschichte der Physik auch den vielen aktiven Physikerinnen und Physikern zu vermitteln, etwas, das zu Jubiläumszeiten auch besonders erwünscht und nachgefragt ist, nicht zuletzt im zurückliegenden Quantenjahr. Ein summarischer Rückblick auf die historischen Aktivitäten innerhalb der DPG zum Quantenjahr diskutiert Erfahrungen und stellt die Frage, welche Bedeutung die Physikgeschichte für Physikerinnen und Physiker sowie Physikstudierende haben kann und welche Chancen sich hier eröffnen.

Invited Talk GP 1.3 Mon 15:00 KH 02.019

Flucht oder Tod – das Schicksal verfolgter Mitglieder der DPG im Nationalsozialismus — •Stefan L. Wolff — Deutsches Museum, Munich, Germany (Träger der DPG-Ehrennadel 2025)

Seit dem Berufsbeamtengesetz vom April 1933 verloren viele Wissenschaftler aufgrund ihrer Herkunft oder politischen Haltung ihre Anstellung und einige von ihnen auch ihr Leben. Die aktuell zur Verfügung stehenden Datenbanken und Archivzugänge wie etwa zu den Unterlagen der Entschädigungsämter ermöglichen uns, die hiervon betroffenen Personen systematisch und vollständiger als bisher zu erfassen. Darüber hinaus erlaubt uns dies in manchen Fällen, Kontakte zu den Nachfahren herzustellen. Neben der Rekonstruktion der Biographien beinhaltet dieses Projekt die Anbringung von Gedenktafeln bzw. das Setzen von "'Stolpersteinen"' am letzten Wohnort der Opfer. Von den Ergebnissen dieser Spurensuche soll berichtet werden.

GP 2: History of Theoretical Physics

Time: Monday 16:15–18:15 Location: KH 02.019

GP 2.1 Mon 16:15 KH 02.019

The Young Bohr on the "Statistical": A Prelude to Quantum Indeterminacy — •Hajime Inaba — Meiji University, Tokyo, Japan — Niels Bohr Archive, University of Copenhagen, Denmark

This paper examines how and what Niels Bohr learned about the statistical approach in science during the 1900s, thereby illuminating his intellectual development during his student days. Despite the innovative work of James Clerk Maxwell and Josiah Willard Gibbs in the late nineteenth century, the word "statistical" still seems to have sounded peculiar in the context of physics at the beginning of the twentieth century. When Bohr enrolled at the University of Copenhagen in 1903, statistics, as discussed by Harald Westergaard, mainly concerned mass phenomena such as population, economy, and insurance. *Theory of Observation* by Thorvald Thiele, under whom Bohr studied mathematics, offered a mathematical theory of observational error illustrated by examples from population statistics. Harald Høffding, with whom Bohr had long been familiar, also discussed the relation between statistical laws and human behavior. In the context of physics, Bohr's doctoral dissertation on the theory of electrons in metals (1911) explicitly adopted Gibbs' theory of statistical mechanics. Bohr probably encountered it through a paper by Peter Debye, who emphasized the universality of Gibbs' method in that it depended only on the statistical properties of the constituents. This paper thus provides a backdrop for highlighting Bohr's later conception of the "statistical," which came to encompass indeterminacy in quantum mechanics.

GP 2.2 Mon 16:45 KH 02.019

From Virtual to Real. The Epistemological Relevance of Virtual Entities in (the Early History of) Quantum Field Theory — •Markus Ehberger — Deutsches Museum, München

The ontological, representational and epistemological status of virtual particles is still debated in the philosophy of physics. In the corresponding literature, the concept is nearly exclusively studied through its modern formulation. In this contribution, I will take a historically informed perspective on the virtual particle's role in scientific reasoning. By means of historical examples, I will identify an argumentative structure which utilizes the virtual particle concept - or concepts which we can reconstruct as lying in its historical trajectory. Such arguments are now part of scientific practice for nearly 100 years and, applying them, physicists took and take the ontological step from the virtual to the real. I will further argue that the appeal of reasoning with virtual particles and their prominence in the didactic literature is partially due to the storylines which could not be told without them. It is the narrative structure of the physical arguments and the virtual particle's role in them - both historically and contemporary -, which contributes to the concept's success.

GP 2.3 Mon 17:15 KH 02.019

On Textbooks and their Contexts during the Renaissance of General Relativity — •Bernadette Lessel — Philosophisches Institut, Universität Bonn

The Renaissance of General Relativity refers to the period from roughly 1955 to 1975, during which the field experienced significant institutional growth and conceptual advancements. The institutional growth came in the shape of the establishment of several research centers, each typically led by a senior principal investigator (PI) guiding a group of postdoctoral researchers and doctoral students, as is well documented in the work of Roberto Lalli, Jürgen Renn, and Alexander Blum. These centers acted as intellectual schools, where knowledge of general relativity was passed on to students, which was however channeled through the lens of the PI's particular research focus. A manifestation of this was the surge of publications of school-specific textbooks on general relativity. This talk examines the textbooks produced by three influential schools, analyzing how they reflect their unique research environments and their impact on subsequent generations of relativists: 1) The Hamburg group around Pascual Jordan, who aimed at an extension of general relativity to incorporate a variable gravitational constant. 2) The Paris group led by mathematician André Lichnerowicz, whose interest was the initial value problem in general relativity. 3) The Syracuse group around Peter Bergmann, who transitioned from unified field theory -collaborating initially with Albert Einstein- to concentrating on quantum gravity.

GP 2.4 Mon 17:45 KH 02.019

Foundations of quantum mechanics and the Milan School (1950s–1960s): conceptual issues and historical perspectives — •Luisa Lovisetti and Marco Giliberti — Department of Physics "Aldo Pontremoli", University of Milan, Milan, Italy

The Department of Physics at the University of Milan developed an early and distinctive interest in the conceptual and formal development of quantum mechanics, reflected in both its teaching programme and research activities. As early as the A.Y. 1926–27, lectures on matrix and wave mechanics were delivered by A. Pontremoli, making Milan one of the first Italian universities to introduce quantum mechanics

into its curriculum. From the late 1950s onward, at a time when the pragmatic "Shut up and calculate" attitude was becoming increasingly dominant, a group of Milan-based physicists engaged deeply with foundational issues, contributing to the international debate on the foundations of quantum theory. A central role in this effort was played by G.M. Prosperi and his 1962 paper *Quantum Theory of Measurement and Ergodicity Conditions* (co-authored with A. Daneri and A. Loinger), which addressed the measurement problem within the conceptual framework developed by P. Jordan and G. Ludwig. The paper sparked a wide debate among leading physicists and also attracted significant attention from historians and philosophers of quantum theory. Drawing on the 1962 paper and subsequent responses, this presentation aims to illustrate a fundamental step of the historical development of the Milan School's foundational research and to explore its impact on the broader history of quantum mechanics.

GP 3: Particles in Practice

Time: Tuesday 11:00–12:00 Location: KH 02.019

GP 3.1 Tue 11:00 KH 02.019

Particle Dance: On the Experimental Intertwining of Brownian Motion and Elementary Charge in the Early 20th Century — •Julia Bloemer — Europa-Universität Flensburg, Germany

The experiments with the oil-drop apparatus are celebrated for their precise determination of the elementary charge and are famously associated with the 1923 Nobel Prize in Physics awarded to Robert A. Millikan. Yet, the historical record reveals a much more complex picture. The same apparatus was simultaneously used by Millikan's doctoral student Harvey Fletcher to investigate another physical phenomenon, Brownian motion, and to determine a different constant, Avogadro's number. Brownian motion, the thermal and jittery movement of small particles, was treated as a disturbance in one line of inquiry – elementary charge – and became the very object of measurement in the other. This raises fundamental questions about experimental practice: How did taking Brownian motion into account change experimentation with the oil drop apparatus, as well as the subsequent data analysis and theoretical discussions? The results of this analysis will improve not only our understanding of a canonical experiment in the history of physics, but also of the process of control and stabilisation in experiments.

GP 3.2 Tue 11:30 KH 02.019

Der Kernphysiker Karl-Heinz Höcker und sein Beitrag zur Uranmaschine — •Roland Sadler — Universität Stuttgart, Historisches Institut

Karl-Heinz Höcker ist vor allem deshalb interessant, weil er gemeinsam mit Werner Heisenberg und Carl Friedrich von Weizsäcker an der Entwicklung der theoretischen Grundlagen der Uranmaschine beteiligt war. Nach seinem Studium wurde Karl-Heinz Höcker der erste Doktorand von Carl-Friedrich von Weizsäcker. Er promovierte bereits 1940 mit dem kernphysikalischen Thema Wirkungsquerschnitte der Reaktionen zwischen Neutronen und Deuteronen. Aus diesem Jahr gibt es ebenfalls Forschungsberichte mit einem technischen Anklang: Berechnung der Energieerzeugung in der Uranmaschine und später Über den Wärmetransport aus der Uranmaschine. Das zeigt, dass bei Karl-Heinz Höcker in Forschung und Lehre von Anfang an Physik und Technik nahe beisammen lagen. Nach seinem Wehrdienst wechselte er Ende 1942 an das Institut für Theoretische Physik der Reichsuniversität Straßburg. Hier war er Assistent von Carl Friedrich von Weizsäcker. Karl-Heinz Höcker arbeitete weitgehend unabhängig weiter an Themen zur Uranmaschine. 1943 zeigte er, dass ein räumliches Gitter aus Atomwürfeln in schweren Wässern einen höheren Neutronenvermehrungsfaktor ergibt, als eine Anordnung aus Platten. Dieses Würfelgitter wurde dem letzten Großversuch 1945 in Haigerloch zugrunde gelegt. Dieser Vortag gibt einen ersten Überblick, von den Arbeiten, die Karl-Heinz Höcker für die Uranmaschine geleistet hat.

GP 4: Instruments and Measurement

Time: Tuesday 16:15–18:15 Location: KH 02.019

Invited Talk GP 4.1 Tue 16:15 KH 02.019

Scientific Instruments and the Evolution of Experimental Volcanology: Insights from Mount Etna — •Valentina Roberti — Department of Humanities, University of Catania, Italy

This contribution examines the emergence of volcanology as an experimental science through an analysis of the scientific instruments employed in research on Mount Etna. Beginning with Giovanni Alfonso Borelli's investigations of the 1669 eruption, scholars progressively incorporated new methods and instruments into the study of volcanic activity. The development of volcanology as an autonomous field, however, was neither linear nor uniform; rather, it was initially shaped by the interaction of different disciplines, such as physics, chemistry, and later geology and mineralogy, as well as by the intrinsic complexity of volcanic phenomena. The analysis is situated within the cultural and academic context of Catania, starting with the university reform of 1779, which introduced the first scientific chairs and promoted the acquisition and commissioning of instruments from both local craftsmen and leading European ateliers. Particular attention is devoted to selected case studies drawn from the cabinets of natural history, physics, and chemistry, whose instruments embodied disciplinary advances and were simultaneously employed in the investigation of Mount Etna. Surviving artefacts provide tangible evidence of the convergence of research and teaching practices that contributed to the institutionalization of volcanology at the University of Catania. These findings have directly informed a broader initiative aimed at enhancing the university's historical scientific heritage, including the temporary exhibition *Lo studio dell'Etna tra strumenti e rappresentazioni* (*The Study of Mount Etna Between Instruments and Representations*), held at the Museo della Fabbrica, Department of Humanities, from 10 March to 30 April 2025.

GP 4.2 Tue 17:15 KH 02.019

Stereoscopic Rangefinders: in the Borderlands Between Physics and Physiology — •Andreas Junk — Europa-Universität Flensburg

The development of the stereoscopic rangefinder is the strange story of an improvement of precision in range determination by introducing a notoriously unprecise element: an observer. After the identification and introduction of the personal equation in astronomy in the first half of the 19th century it was clear, that the human factor cannot possibly be removed from any measurement made by a human operator. The resolution in that particular case was to find methods to remove the human error by mathematical means. The subsequent idea of precision measurement, which were intiated based on the findings of Bessel in astronomy, was to an extent to not let an operator have an influence in any precise measurement, i.e. to remove the operator from the measurement.

In the last decade of the 19th century the newly developed rangefinders were pushing the limits of precision engineering but they were facing very basal problems regarding the uncertainty of the measurement. The geometrical principles of physics and engineering indicated, that the error to be expected in distance measurement couldn't be ruled out by precise manufacturing or an improved design of the instrument. The development of the stereoscopic telemeter was not only an attempt to overcome this particular problem, it added insult to injury by re-introducing the human operator, whose daily experiences gave the grounds to improve the measurements at large distances.

GP 4.3 Tue 17:45 KH 02.019

Development, optimization, distribution, installation and repair of early Bruker Fourier transform infrared spectrometers — •Prof. Dr. Klaus Hentschel — Head of the Section for History of Science & Technology, University of Stuttgart

Roughly 50 years ago, the Karlsruhe & Ettlingen-based company of Bruker Optics introduced its first Fourier-transform infrared spectrometer IFS 113v. An interdisciplinary working group at the University of Stuttgart, consisting of physicists still working with similar kinds of Fourier-transform instruments and a historian of science & instrumentation, collaborated with the Bruker Optics company which gave free access to its archives. A website is produced informing interested users about the history of Fourier-transform technology, the history of Bruker Optics and technical details of FT interferometers including beam-splitters and mirrors, detectors, typical sources etc. Furthermore, 4 members of the Bruker team were interviewed who were active in the early years and had participated in Bruker instrument development and improvement, management, sales, installation and repair. All of this will be presented in an openly accessible webpage, to be released in the spring of 2026. Samples of this webpage will be presented and discussed.

GP 5: Members' Assembly

Time: Tuesday 18:30–19:30 Location: KH 02.019

Invitation and agenda will be sent out separately.

GP 6: Physics and People

Time: Wednesday 11:00–12:30 Location: KH 02.019

GP 6.1 Wed 11:00 KH 02.019

Physik-Dissertationen von Chinesinnen und Chinesen an deutschen Hochschulen zwischen 1939 und 1945 — •Xian Wu — TU Bergakademie Freiberg, Freiberg, Germany

Die Geschichte des Auslandsstudiums von Chinesinnen und Chinesen geht auf das 19. Jahrhundert zurück. 1907 erhielt Fuji Li als der erste in Europa und zugleich der erste in einer Naturwissenschaft promovierte Chinese mit einem Thema zur experimentellen Spektroskopie am Physikalischen Institut der Universität Bonn. In der ersten Hälfte des 20. Jahrhunderts war Deutschland nach den USA das zweitbeliebteste Land für diejenigen Chinesinnen und Chinesen, die einen Doktorgrad in einer naturwissenschaftlichen oder technischen Disziplin anstrebten.

Zwischen 1939 und 1945, als der Nationalismus die allgemeine Stimmung in Deutschland prägte und die Beziehung zwischen China und Deutschland ab 1941 aufgrund des Zweiten Weltkriegs einen Tiefpunkt erreichte, studierten immerhin zahlreiche Chinesinnen und Chinesen an deutschen Hochschulen in verschiedenen Disziplinen. Darunter schrieben mehr als zehn Studierende ihre Doktorarbeiten auf den Gebieten der Physik.

Wer sind diese Doktoranden? Worum geht es bei ihren Dissertationen? Wo wurden die Arbeiten durchgeführt und von wen wurden sie betreut? In diesem Vortrag wird ein Überblick über diese Aspekte dargelegt, was bisher von Wissenschaftshistorikern ungenügend beachtet wurde.

GP 6.2 Wed 11:30 KH 02.019

Quantitative Analyse der Darstellung von Frauen in Physik- und Astronomie-Journals (1950-1999) — •Colleen Seidel — Bergische University Wuppertal, Wuppertal, Deutschland

Die zweite Hälfte des 20. Jahrhunderts war eine Zeit des Umbruchs: Frauen drangen langsam in die männlich dominierten Naturwissenschaften vor, während gleichzeitig die Wissenschaftsgeschichte begann, ihre Beiträge systematisch aufzuarbeiten. Doch wie spiegeln sich diese Entwicklungen in den Publikationen der Disziplinen selbst wider?

In meiner Forschung untersuche ich quantitativ, wie Frauen in Physik- und Astronomie-Journals von wissenschaftlichen Gesellschaften aus Westeuropa und den USA in der zweiten Hälfte des 20. Jahrhunderts dargestellt wurden. Zum einen nutze ich eine Keyword-basierte Volltextanalyse, um die Inhalte der Journals nach bestimmten Begriffen zu durchsuchen, die im Zusammenhang mit Physikerinnen, Astronominnen und Geschlechtervorstellungen stehen. Zum anderen analysiere ich die Autor:innenschaft der Journals, um hier die Entwicklungen in der Partizipation von Frauen in den Disziplinen nachvollziehen zu können. Meine Ergebnisse kontextualisiere ich durch die Entwicklungen in der Frauen-/Genderforschung sowie der Physik-, Astronomie- und Wissenschaftsgeschichte.

GP 6.3 Wed 12:00 KH 02.019

Women physicists and technicians in the Paperclip Program — •Johannes-Geert Hagmann — Deutsches Museum, Munich, Germany

At the end of World War II, national interest programs for the evacuation and immigration of specialist scientist from Germany, Austria and other countries to the USA were born. These initiatives were designated by the names of Project Paperclip, Project 63 and Defense Scientist Immigration Program (DEFSIP). They operated over a time period of more than 20 years from 1945 to the end of the 1960s. While a significant body of historical literature has described these programs in their globality, the role of the small cohort of women scientists and technicians has so far been overlooked. In this contribution, we reconstruct and highlight selected biographies of women physicists and technicians in the Paperclip program, adding to a transnational historical perspective of migration of scientists from Europe to the USA in the early Cold War period.

GP 7: Practices and Experiments

Time: Wednesday 13:45–15:45 Location: KH 02.019

GP 7.1 Wed 13:45 KH 02.019

Materielle Kultur der Thermodynamik: Werkstattbericht aus dem Ausstellungsprojekt „Energie – Dampf“ — •Eckhard Wallis — Deutsches Museum, München, Deutschland

Im Zuge der Generalsanierung des Deutschen Museums wird die Kraftmaschinenausstellung bis 2028 zur thematisch breiteren Ausstellung „Energie – Dampf“ umgestaltet. So soll auch der ehemalige Raum „Moderne Dampfmaschinen“ zukünftig eine allgemeinere Perspektive auf thermodynamische Prozesse einnehmen. Die physikalischen Prinzipien von Dampfmaschinen, so die Kernbotschaft, haben nichts an Aktualität verloren. Kreisprozesse und Phasenübergänge sind bis heute elementar für das Verständnis von Kältemaschinen und Wärmepumpen, aber auch von Kraftwerken und Dampfturbinen. Historische Artefakte bilden eine tragende Säule des Ausstellungsnarrativs. Der Vortrag gibt einen Einblick in den aktuellen Planungsstand und reflektiert insbesondere die Frage, welchen Mehrwert der Einbezug der materiellen Kultur für die Vermittlung thermodynamischer Prinzipien bietet.

GP 7.2 Wed 14:15 KH 02.019

Experiments on the Propagation of Light: Taqi al-Din al-Rasid and His Source Ibn al-Haytham — •Sena Aydin — Istanbul Medeniyet University Institute for the History of Science, Istanbul, Turkey

Taqi al-Din al-Rasid (d. 1585) is regarded as the leading figure of optical science in the classical Ottoman period. Containing forty-nine experimental setups, his book on optics may be considered an experimental manual. One of its principal sources is Ibn al-Haytham (d. 1040), who, by combining physical and mathematical methods in the history of science, established the method of experimental verification. In doing so, he brought about a major transformation in optical studies and fundamentally changed how natural philosophers produced scientific knowledge. The experiments of Taqi al-Din on the propagation of light include observations such as the perception of objects by the eye along straight lines; the formation of a conical structure by light as it travels between the eye and the object; the observation that light spreads in a straight direction through smoky air; the spherical propagation of light from every point of a luminous source toward all opposite directions; and the creation of secondary lights as rays from primary sources reflect off surfaces. This study aims to present examples of replicas of experiments of Taqi al-Din on the propagation of light, produced within the framework of our project, and to analyze these experiments in comparison with those of his primary source, Ibn al-Haytham.

GP 7.3 Wed 14:45 KH 02.019

Between geometry and physics: revisiting Torricelli's Opera geometrica (1644) as a foundational framework for early modern mechanics — •Raffaele Pisano — HOPAST team, IEMN, Department of Phsysics, University of Lille, France

My talk revisits the physical-mathematical foundations of Evangelista Torricelli's Opera geometrica (1644) within the context of seventeenth-century mechanics and geometry. Marking the 380th anniversary of the work, it draws on the historical-scientific analysis developed in Homage to Evangelista Torricelli's Opera Geometrica (1644-2024) (Springer, 2024), which presents a critical transcription of the original text alongside interpretative essays. Torricelli stands at a crucial transition between classical Archimedean geometry and early modern infinitesimal methods, deeply shaped by Galilean mechanics. Like Cavalieri, he relied on geometrical proportions rather than algebraic equations and worked without an explicit notion of limit. Yet Torricelli advanced beyond the geometry of indivisibles by seeking the logical and physical structure underlying geometrical reasoning. His mathematics is inseparable from physical-mechanical meaning, especially in problems concerning motion, statics, and the determination of areas and volumes of curvilinear solids. For example, Torricelli's proofs on finite volume of the solido acutissimo, illustrating early infinitesimal reasoning at the boundary between geometry and mechanics, and his analysis of the logarithmic spiral, revealing a refined conception of geometrical motion.The Opera geometrica is examined as a synthesis of geometry, infinitesimals, and mechanics.

GP 7.4 Wed 15:15 KH 02.019

Practicising with the Lucernal Microscope — •Peter Heering[1] and Trienke van der Spek[2] — [1]Europa-Universität Flensburg, Institut für Physik und ihre Didaktik und Geschichte — [2]Teylers Museum Haarlem

The lucernal microscope, a projection microscope that uses the newly developed Argand lamp as a light source, was developed at the end of the 18th century, particularly George Adams sen. and jun. are key persons in this respect. The instrument was marketed as an improvement of the solar microscope and has two key advantages. Due to the use of an artificial light source, the device can be used both during the day and, above all, at night. Furthermore, use of the device is not dependent on weather conditions, meaning that, unlike a solar microscope, it can be used for demonstrations at any time.

Martinus van Marum ordered a lucernal microscope together with a substantial set of specimens from George Adams in 1788. This instrument still exists in Teylers Museum Haarlem where we started to use both the instruments and the specimens for projections. In our presentation, we are discussing the experiences made in working with the instrument. Moreover, we will also discuss in particular the findings with respect to the sliders - this seems to be particularly relevant as these objects are frequently neglected in the discussion of 18th century microscopes.