

**SCIENCE IN THE CZECH LANDS:
THE SIGNIFICANCE OF PRAGUE AS A PLACE FOR THE
HISTORY OF SCIENCE**

24 September 2019

Conference Room, Centre for Theoretical Studies, Jilská 1, 110 00,
PRAHA

Organizer: Centre for Science, Technology, and Society Studies, with the support of GACR GRANT, GJ19-03125Y - *Matematika v Českých zemích: od jezuitského učení po Bernarda Bolzana*

Programme

9:30 – 10:45

Iva Lelková, *Czech Academy of Sciences, Department of Comenius Studies and Early Modern Intellectual History, Praha*

Mathematicians in the early modern Bohemia and their correspondence contacts within European intellectual networks

This paper will explore correspondence contacts of mathematicians active in Bohemia in the second half of the seventeenth century with the rest of Europe. The research is based mostly on correspondence of Jesuit polymath Athanasius Kircher (1602-1680). Prague looms large within Kircher's correspondence and mathematicians based in Bohemia like Theodor Moretus, Gottfried Aloys Kinner von Löwenturn or Adam Adamandus Kochański corresponded about current mathematical topics not only with Kircher, who rarely left Rome, but also with other outstanding figures of the seventeenth century Republic of Letters like Christiaan Huygens, René Descartes and others. The paper will attempt to answer the question how the mathematicians active in Bohemia created their contacts with European scholars and what kind of conclusion about their position within European scholarly networks can be made on basis of limited amount of scholarly correspondences accessible.

11:00 – 12:15

Georg Schuppener, *University of Leipzig, Germany*

Jesuit and post-Jesuit mathematics in the 18th and beginning 19th centuries

Since the middle of the 16th century the Jesuits dominated mathematics and the related disciplines in Bohemia. In the 18th century Jesuit science came into a crisis since their traditional philosophical basis was confronted with the ideas of the enlightenment. The raising natural sciences based on experimental proofs and not on philosophical reflection had a significant impact on mathematics and the state of Jesuit science in general, too. Further, the awaking national movement and the academic and administrative reforms initiated by Maria Theresia and Joseph II. influenced also the development of Jesuit mathematical research and teaching in Bohemia at the end of the 18th century. The contribution intends to give an overview of these developments and tendencies.

12:15 – 14:00 Lunch break

14:00 – 15:15

Alene Šolcová, *Faculty of Information Technology, CTU in Prague*

Jesuit Education and Teachers of Bernard Bolzano

This contribution is concentrated on the change in the education of exact sciences in the Jesuit Academy in Prague in the 18th Century. The conceptual shift from the Aristotelian Science to the Newtonian Science was influenced by Joseph Stepling. It was he who played a central role in the change of the Jesuit educational curriculum. We will illuminate his scientific life and work and his impact on the education of exact sciences at the Prague University. Joseph Stepling made first steps to Newtonian Physics and founded the seminar for students and colleagues. They solved problems of calculus (I. Newton and G. W. Leibniz, etc.) there. Stepling interested in number theory, too. All his papers are in Latin language and later were translated to German by his pupil Anton Strnad, the future director of observatory. In 1748 Stepling determined the geographical length of Prague for the new map of Germany. In 1751 the observatory in the Jesuit College in the Clementinum was founded. He studied the aberration of light of stars, and the electricity. In 1752 he started the regular meteorological observations. We could accept him as one of the founders of symbolic logic. He also influenced many his successors and pupils, among them Joannes Tesanek („Czech Newton“), Stanislaw Wydra (the professor of mathematics) , Anton Strnad (the professor of astronomy), Alois M. David (the director of observatory), Franz J. Gerstner (the professor of higher mathematics and the founder of Czech Technical University). All of them took part in education of Bernard Bolzano, the future mathematician.

15:30 - 16:45

Petra Hyklová, *Charles University in Prague*

Astronomy in Czech Lands in 19th century

Through the 18th and 19th century, astronomy in Lands of the Czech Crown consisted mainly of obsolete State Observatory in Clementinum and a few private observatories. Astronomers often chose Prague as a temporary place of work, before they would acquire a position at a larger observatory. The situation changed with Czech National Revival and split of Prague university, that resulted in creation of new positions in academia as well as initial complications of working in provisional arrangements and changes in roles of both new universities. This contribution will explore connections among professional and amateur astronomers in Czech lands and role of institutional conditions, nationality and language in development of Czech astronomy.