

**Peter Heering \***

## **Historical experiments as an access to epistemological aspects in physics teacher training**

IN THE PROGRAMME FOR PHYSICS TEACHERS at the Carl-von-Ossietzky University Oldenburg the history of physics plays a central role. Apart from using text on the historical development of physics as well as historical source materials, we are also using reconstructed historical apparatus in a compulsory lab course. In working with these apparatus, the students are not only confronted with historical as well as scientific questions. They also have to deal with epistemological questions that are closely related to the nature of science and the nature of scientific knowledge production. Moreover, the students are confronted with positions that are based on knowledge systems that are different to our modern scientific knowledge but which are related closely enough to be accessible to the students. Apart from that compulsory course, the students have also the opportunity to prepare their final master thesis on a particular historical experiment. In analysing this experiment, they have to develop scientific as well as historical expertise. However, the scientific expertise is developed in a more self-reflexive manner, thus the students are getting aware of how they are constructing a stable experimental situation.

In my presentation I am going to discuss the opportunities for science teacher training offered by the use of historical experiments in more detail and will exemplify these characteristics by examples from our courses.

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