

School of Science Faculty of Physics

PHYSICS COLLOQUIUM

Speaker: Prof. Eugenia Etkina Rutgers, The State University of New Jersey



Topic:Conceptual Model of Physics Teacher Preparation: Developing
Habits of Mind and Practice through Apprenticeship in a
Community

- Time and
 Tuesday, November 8, 2022, 4:40 pm Online only event

 place:
 Zoom-Meeting: Meeting-ID: 631 5739 2792 / passcode: Kolloq#01

 https://tu-dresden.zoom.us/i/63157392792?pwd=SiF3RURFSDhrSGdCRTRqRS9xbHBZZz09
- *Host:* Jun.-Prof. Lana Ivanjek
- Abstract: This talk will describe a conceptual framework, developed together with S. Vokos and B. Gregorcic, aimed at providing a better understanding of the process of development of a physics teacher. Literature on teacher preparation suggests that future teachers learn best when they are immersed in a community, which shares a common vision of good teaching and helps them develop requisite knowledge, skills, and dispositions consistent with that vision. However, often due to the time pressures and complexities of classroom environment a teacher cannot afford multiple considerations and deliberations with oneself before every decision. We therefore suggest that good teacher preparation programs should, in addition to the knowledge, skills and dispositions, strive to develop productive habits in future teachers. We group those into habits of mind, habits of practice, and habits of maintenance and improvement. I will present examples of those habits and describe the structure and the details of the Rutgers Physics Teacher preparation program that is focused on the development of productive habits. I will share evidence of the program developing such habits.
- *Bio:* Eugenia Etkina is an Emerita Distinguished Professor at Rutgers, the State University of New Jersey. She is a Recipient of the 2014 Millikan Medal of the American Association of Physics Teachers (AAPT), awarded to educators who have made significant contributions to teaching physics, and is a fellow of the AAPT. Professor Etkina designed and coordinated one of the largest programs in physics teacher preparation in the United States. In 1993 she developed the Investigative Science Learning Environment (ISLE) approach in which students learn physics using processes that mirror scientific practice. The ISLE approach, enriched by collaboration with many colleagues, is described in detail in the IOP book "Investigative Science Learning environment: When learning physics mirrors doing physics".



Get-Together

The colloquium will be followed by a Get-Together with Prof. Eugenia Etkina in Room B101 and online in Zoom (about 6 p.m.). Female students and staff are invited to talk to the speaker and discuss female perspectives on challenges in studies and professional life.

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