

**khdm-Webseminar zur
Hochschuldidaktik der Mathematik**
Mittwoch, 10.06.2026, 16:00 Uhr – 18:30 Uhr

<https://zoom.us/j/92924706892?pwd=Sl7E1SDzfkoXeY1FcdJulba5eZzC8i.1>

Programm

16:00 Uhr – 16:05 Uhr	Begrüßung und Einführung in das khdm-Webseminar (Reinhard Hochmuth, Universität Hannover)
16:05 Uhr – 17:10 Uhr	Vortrag 1 mit Diskussion (45 + 20 Min.) <i>On a Theory of Transformative Mathematical Education</i> (Lukas Günther, Universität Hannover)
ca. 15 Minuten Pause	
17:25 Uhr – 18:30 Uhr	Vortrag 2 mit Diskussion (45 + 20 Min.) <i>SRPs as a teaching device that questions knowledge at the university level</i> (Ignasi Florensa Ferrando, Escola Universitària Salesiana de Sarrià, Barcelona)

Abstracts zu den Vorträgen:

Vortrag 1: On a Theory of Transformative Mathematical Education

The transition from school to university mathematics presents a socio-cultural and epistemological challenge, with students being confronted with an unfamiliar mathematical culture specific to their field of study. In order to participate in this new cultural context, students must undergo a process of mathematical enculturation, learning and reproducing the cultural features, dynamics, practices and knowledge of a social group and thereby reacculturating those related to a familiar culture of school mathematics. In this talk, a theoretical and empirical perspective on this transition will be presented, with a focus on individual transformational processes and related crises. Drawing upon a German educational theory, a concept of transformative-mathematical education is proposed, forming the basis of an empirical study of the initial phase of university mathematics programmes. This study examines students' self- and world-relations towards their interactions with mathematics, others, and themselves in the cultural spaces at first year university mathematics. It is argued that crises can be understood as opportunities for the necessary transformation of habitual ways of perceiving, thinking, and acting in mathematics towards a culture of university mathematics.

Vortrag 2: SRPs as a teaching device that questions knowledge at the university level

The notion of SRPs (Study and Research Paths) originated from an institutional device established in the early 2000s by Yves Chevillard and his research team in Marseille. Since its origins, this device has been mobilised on numerous occasions and at different educational levels. As early as 2008, the first implementation experiences took place in "modelling seminars" within a mathematics course for a university biology program, as part of Berta Barquero's thesis. After this first experience, these studies spread to engineering, management, and chemistry programs, among other fields. Beyond this, SRPs are didactic devices that allow for the study of the ecological conditions of existence for this type of activity, as well as the conditions that govern a possible transition of the didactic paradigm. Through these devices, it is also possible to study the evolution of knowledge and its *raison d'être*. The work presented here will first focus on the different implementations and modes of SRP compatibility in university courses. Secondly, we will analyse how SRPs shape knowledge across different courses in engineering studies. Finally, I will address the tension that SRPs highlight between engineering-based practices and the mathematical tasks encountered in the first years. The implementation of SRPs allows us to highlight this tension.