



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 8. November 2022

17 Uhr, Geom H4

Prof. Dr. Chelsea Walton
(Rice University Houston)

Modernizing Modern Algebra:
Category Theory is coming, whether we like it or not

Abstract:

Inspired by my current stay at the University of Hamburg this Fall, I will chat about the development of the field, Modern Algebra, starting with the foundations set in Germany in the 1920s. Through the work of E. Artin and E. Noether, and through the writings of B. L. van der Waerden, Modern Algebra launched onto the mathematical scene as a sort of Haute Couture fashion in the 1930s. These days, this field is certainly presented as fashion for the masses, as is included in any standard undergraduate curriculum in mathematics. In fact, the contents of van der Waerden's landmark 1931 textbook "Moderne Algebra" is much in line with our syllabi for such courses today. Now at the 100 year mark since the emergence of Modern Algebra, one might wonder: What's next? I believe it's Category Theory, whether we like it or not. To support this belief, I'll spend most of the time in the talk presenting a case study for algebras in a few settings-- over a field, categorical, and 2-categorical. Applications of algebras in these settings will be emphasized, and the talk to be down-to-earth.

**Vor dem Vortrag (ab 16.30 Uhr) stehen im Foyer vor Hörsaal H4
Kaffee und Tee bereit.**