

## Fachbereich Philosophie

## Fachbereichskolloquium Wintersemester 2OI6/I7

I8: I5 bis I9:45, G 307

Im Rahmen des Philosophischen Kolloquiums findet am Donnerstag, 16. Feruar, folgender Vortrag statt:

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## Ernst Cassirer's Philosophy of the Concept of Function and Nineteenth-Century Geometry

One of the distinctive characteristics of modernism in mathematics between the nineteenth and the twentieth century is that the specialization of mathematical disciplines presupposes a clarification of concepts from a purely logical point of view. However, the original, wider meaning of such concepts as function, coordination, and representation seems to have motivated many of the tendencies now defined as modernist. In more recent years, Ernst Cassirer's neo-Kantian philosophy of the concept of function (1910) has been reconsidered as a possible philosophical framework to account for the methodology underlying the formalization of arithmetic from the extension of numerical domains to the study of abstract structures. Building on the same account, this paper reconsiders Cassirer's original focus on how the model of knowledge provided by the concept of function can be extended to progressively include different kinds of mathematical and natural concepts. It will be argued with particular reference to the context of nineteenth-century geometry that Felix Klein's idea of arithmetization offers a clear example of knowledge transfer according to the philosophy of the concept of function. Not only did Klein provide a unified perspective on different directions of mathematical research, but he also pursued arithmetization to shed light on various mathematical and scientific practices.

Alle Interessierten, insbesondere auch Studierende, sind herzlich eingeladen.

