Workshop
Poincaré's Philosophy of Mathematics

by Janet Folina

Tuesday 7th July

10h-13h Kant on Mathematical Knowledge, and comparison with Poincaré

Kant's Philosophy of Mathematics and some preliminary comparisons with Poincaré. We will sketch a picture of Kant's main views on the nature of mathematical knowledge. Concepts to be discussed include: space, time, intuition, and "construction of concepts".

15h-18h Poincaré's concepts of Intuition, the roles of Intuition in Mathematics, and comparison with other concepts of Intuition (Kant, Brouwer, Weyl, etc.)

Poincaré's Concepts of Mathematical Intuition. We will survey the variety of concepts of intuition Poincaré uses in connection to mathematical knowledge. We will identify the uses that best enable him to (as he saw himself) defend Kant's philosophy of mathematics. We will also compare the uses of "intuition" of several other 20th century intuitionists (Brouwer, Weyl, etc.).

Wednesday 8th July

10h-13h The distinction between Logic and Mathematics

The Distinction between Logic and Mathematics. Poincaré argues against logicism that mathematics is more than just logic. But what is logic and how is it different from mathematics? Did the logicists simply "change the subject" or shift the terms of the debate with their innovations in logic (as Poincaré at one point charges)? We will consider some of the conceptual framework that surrounds 'logic' and 'mathematics' in an attempt to clarify this question.

15h-18h Poincaré's Philosophy of Mathematics: an Overview and Some Consequences

Poincaré's Philosophy of Mathematics and Some Consequences. I will give an overview of Poincaré's complex views about mathematics. He is known for his conventionalism in science, but this does service neither to his views about geometry nor to his views about mathematics more generally. Regarding pure mathematics he was not a conventionalist but a Kantian. I will discuss some of his arguments for intuition in mathematics, the proper place for "conventionalism" in Poincaré's philosophy, and the relationship between his philosophy of mathematics and some aspects of his philosophy of science.

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