



**KURT GÖDEL RESEARCH CENTER FOR  
MATHEMATICAL LOGIC**

UNIVERSITÄT WIEN

1090 WIEN, WÄHRINGER STRASSE 25

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INVITATION

**LUCA INCURVATI**

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**METALOGIC AND THE OVERGENERATION ARGUMENT**

Abstract:

A prominent objection against the logicity of second-order logic is the so-called Overgeneration Argument. However, it is far from clear how this argument is to be understood. In the first part of the article, we examine the argument and locate its main source, namely the alleged entanglement of second-order logic and mathematics. We then identify various reasons why the entanglement may be thought to be problematic. In the second part of the article, we take a metatheoretic perspective on the matter. We prove a number of results establishing that the entanglement is sensitive to the kind of semantics used for second-order logic. These results provide evidence that, by moving from the standard set-theoretic semantics for second-order logic to a semantics which makes use of higher-order resources, the entanglement either disappears or may no longer be in conflict with the logicity of second-order logic.

This is joint work with Salvatore Florio.

**FRIDAY, MARCH 31, 2017**

Sandwiches at 12:00pm  
in the KGRC meeting room (room 104)

Talk at a convenient time afterwards  
in the KGRC lecture room (room 101)

GÖDEL RESEARCH CENTER

JOSEPHINUM, 1090 WIEN, WÄHRINGER STRASSE 25



[http://www.logic.univie.ac.at/  
Friday\\_seminar.html](http://www.logic.univie.ac.at/Friday_seminar.html)

**o.Univ.-Prof. Dr. Sy-David Friedman**