



**SERIE DE CONFERENCIAS - EMILY R. GROSHOLZ EN ARGENTINA 2018**  
**19-23 de marzo de 2018**

Emily R. Grosholz

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**Universidad Nacional de Córdoba**

**Lunes 19 de marzo**

16 - 18 hs Conferencia Inaugural: "The Growth of Mathematical Knowledge: Intersecting Domains, Shifts in Notations, Analysis and Reference".

Presenta: Norma B. Goethe (FFYH-UNC)

Abstract: I trace the development of my understanding of the growth of mathematical knowledge across three books, written over three decades. Working on Descartes' analytic geometry, I studied the importance of intersecting domains. I looked at different patterns of reasoning and shifts in notation as I tracked the origins of modern number theory. And I noted the power of combining reference and analysis, at the intersection of number theory and logic, in my study of the Gödel Incompleteness theorems.

Lugar: Pabellón Residencial - Sala B, FFYH, Universidad Nacional de Córdoba, Argentina

20 hs Cocktail de bienvenida.

**Martes 20 de marzo**

16 - 18 hs TABLE RONDE I: TOPICS OF INTEREST.

Lecturas, conversaciones e intercambios.

Organiza:

Doctorandos y posdoc del equipo de investigación "Exploración matemática, inferencia y creatividad en la resolución de problemas" PICT2014-3351 (FONCYT).

Lugar: Pabellón Residencial - Sala B, FFYH, Universidad Nacional de Córdoba, Argentina

**Miércoles 21 de marzo**

16 - 18 hs TABLE RONDE II: "Grosholz meeting the Logicians" (FFYH-FAMAF)

Coordina:

Luis Urtubey (FFYH-UNC)

Lugar: Pabellón Residencial - Sala B, FFYH, Universidad Nacional de Córdoba, Argentina

20:30 hs CENA

### **Jueves 22 de marzo**

18 - 20 hs Conferencia de Cierre UNC: “Analytic Number Theory, Model Theory and Philosophy”.

Presenta: Javier Blanco (FAMAF-UNC)

Abstract: My central claim is that productive mathematical discourse must carry out two distinct tasks in tandem, analysis and reference. More abstract discourse that promotes analysis, and more concrete discourse (often involving computation or iconic representations) that enables reference, are typically not the same. The resultant composite text characteristic of successful mathematical research will thus be heterogeneous and multivalent, a fact that has been missed by philosophers who begin from the point of view of logic, where rationality is often equated with strict discursive homogeneity. It has also been missed by mathematicians who, using idioms other than logic, are nonetheless in search of a single unified theory. If we give up the ideal of a unified theory, we must give up as well the expectation that all aspects of mathematical practice can be made explicit; indeed, the suppression of certain analytic methods and modes of representation, as well as the superposition of other modes, may advance the search for knowledge.

Lugar: FAMAF - Aula 15, Universidad Nacional Córdoba, Argentina

20 hs Cocktail de despedida.

## **Universidad Torcuato Di Tella – Buenos Aires**

### **Viernes 23 de marzo**

17:10 hs Conferencia Invitada: “Form and Experience: Locke, Leibniz and Hume on Form and Experience”.

Presenta: Guillermo Ranea (Departamento de Estudios Históricos y Sociales - UTDT)

Abstract: Locke, Leibniz, and Hume offer an epistemology where improvement and correction are always possible and indeed required. Locke believes that methods for assessing knowledge must always be empirical and criticizes formal syllogistic logic for its inability to find middle terms, the key to scientific and mathematical knowledge. Leibniz criticizes Locke for his lack of appreciation for the many kinds of formal languages (syllogistic, algebra, the infinitesimal calculus) and their usefulness in discovery and justification. However, Leibniz overstates the power of formalization, even in mathematics, and his position may be usefully modified by Locke’s nominalism. I examine this dispute in the case of both mathematics and legal reasoning. Likewise, Hume’s empiricism, and a notion of formal experience that may be elicited from it, can serve as a middle ground in the dispute between Locke and Leibniz, though I nuance his skepticism by a Leibnizian notion of the analysis of intelligible things. To develop Hume’s mediation, I compare the ‘formal experience’ of mathematicians on the one hand and of lawyers and judges on the other. Rational method thus considered brings abstract principles into relation with particular cases, in the mathematical as well as the legal traditions.

Lugar: Campus UTDT, Buenos Aires