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Johann D. Gaebler* (johann.gaebler@wolfson.ox.ac.uk) and **W. Hugh Woodin**. *“Maybe from this profusion of formal logic . . . some useful idea will come”*: *Lebesgue, Borel, Baire, and the Birth of Descriptive Set Theory*.

Set theory has played a crucial role in laying the foundations of mathematics for more than a century and a half. Nevertheless, from the beginning, unique technical challenges and controversies ranging from the Burali-Forti paradox to the ubiquity of independence have beset the discipline.

We can understand many developments in set theory as attempts to respond constructively to those obstacles. In this talk, we home in on three French mathematicians at the turn of the century: Henri Lebesgue, Émile Borel, and René-Louis Baire. Their careful mediation between the traditional values of mathematical analysis and Georg Cantor’s subversive new theory secured a place for sets in the mathematical mainstream. At the same time, theirs was an uneasy truce between Cantor’s higher transfinite and what they saw as the demands of mathematics proper. Their forays into descriptive set theory shine a light on the more general trend of *dephilosophication* in mathematics, and how successful mathematical revolutions often travel in the guise of the establishment they replace. (Received September 20, 2017)