

- ▶ DAVID GONZÁLEZ, *Logic and the Farey graph*.  
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We will define and discuss a mathematical object called the Farey graph. Last year, Khangeshlaghi and Tent gave an axiomatization of the first-order theory of this object and showed that it is  $\omega$ -stable and of Morley rank  $\omega$ . Building on this theory, in recent joint work with Turbo Ho and Julia Knight, we contrasted this model-theoretic tameness by exhibiting wild behavior from a computability theoretic perspective. In particular, we demonstrate that the theory of the Farey graph is Borel complete, giving the first natural example of a theory that exhibits this contrast. Using techniques from infinitary logic, we also classify the simplest models of the theory. From there, we show that the Farey graph is the unique simplest model of its first-order theory and thereby consider it the “intended model,” in the sense of Kalociński.