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**Christiane Rousseau\***, Université de Montréal, Montréal, Canada. *Divergent series and differential equations: past, present, future...*

Divergent series have been successfully used in mathematics for centuries and have occupied an important place in mathematics until the middle of the 19th century. Then, the call for rigor banished them from most of mathematics. In the 20th century, the use of divergent series was justified rigorously in several contexts including differential equations, together with explanations why they are so powerful both in theoretical studies and practical applications. Yet, divergent series remain a relatively marginal subject in contemporary mathematics. In this lecture I will discuss the use of divergent series in differential equations. I will start with some history, and then show how to justify rigorously the use of divergent series. I will also explain why they are not so marginal in the subject. This will bring me to the future... (Received April 27, 2014)