

Abstract.

"Moreover, we hereby obtain a direct definition of our 14-dimensional simple group which is as elegant as one can wish for."

With these words,

Friedrich Engel summarized his research on the exceptional Lie group G_2 at a talk on June 11, 1900 at the Royal Saxonian Academy of Science. Indeed, the description initiated by Friedrich Engel and accomplished by his doctoral student Walter Reichel in 1907 is one of remarkable scientific insight. It is at the foundation of many surprising results & developments in modern differential geometry and leads directly to the exceptional role that G_2 is playing in current superstring models. In my talk, I will retrace the discovery of the exceptional group G_2 , the history of the completely forgotten mathematician Walter Reichel, and give an introduction to modern developments.