

# Karl Weierstrass

Jürgen Sprekels (*Weierstrass Institute for Applied Analysis and Stochastics*)

Karl Weierstrass (1815-1897) was one of Germany's most prominent mathematicians and of fundamental importance for the worldwide development of mathematics. He set new standards in insisting in mathematical rigor. With a number of famous counterexamples in cases where this rigor was not met (e.g., his 'monster function', which is everywhere continuous but nowhere differentiable), he forced the mathematical community to adopt a quality of treating the fundamental properties of real functions that was not believed necessary before.

Weierstrass was a Professor in Berlin since 1856, and he greatly contributed to one of the heydays of Berlin mathematics, a period that was later referred to as the 'Golden Era' and is associated with the names of Ernst Kummer, Leopold Kronecker, and Karl Weierstrass.

In the lecture, we give an overview over his life and work, in particular, during his time in Berlin. We touch a number of aspects that have been reported in greater detail in the recent monograph[1] which was edited on the occasion of his 200th birthday.

## References

- [1] W. König, J. Sprekels (eds.). "Karl Weierstraß (1815-1897). Aspekte seines Lebens und Werkes – Aspects of his Life and Work". *Mathematik – Analysis*, Springer Spektrum, Wiesbaden (2016).