Kissing spheres – a personal story

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Abstract

I will describe some properties of the 24-dimensional "manifold" of configurations of 12 nonoverlapping equal spheres of radius r touching a central sphere of radius 1. In particular, I will explain the structure of this manifold in the vicinity of its singular points. The talk is based on the paper by Rob Kusner, Wöden Kusner, Jeffrey C. Lagarias and myself: *The twelve spheres problem* arXiv:1611.10297 as well as on a work in progress, by the same authors.