



Seminar/Talk

Counting Zeros of the Electric Field

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Host: Robert Seiringer

In 1873, James C. Maxwell conjectured that the electric field generated by n point charges in generic position has at most $(n-1)^2$ isolated zeroes. The first (non-optimal) upper bound was only obtained in 2007 by Gabrielov, Novikov and Shapiro, who also posed two additional interesting conjectures. In this talk we give the best upper bound known to date on the number of zeroes of the electric field, and construct a counterexample to one of the previously mentioned Conjectures. We also explore examples and construct configurations of charges achieving the highest ratios of the number of electric field zeroes by point charges found to this day.

Tuesday, April 22, 2025 04:30pm - 05:30pm

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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