

Equality of Dedekind Sums

Yiwang Chen, Nicholas Dunn, Campbell Hewett, Shashwat Silas

Dedekind sums were introduced to express the functional equation of the Dedekind eta function. They have since come up in a wide variety of mathematics. We explored the question of when $s(a_1, b) = s(a_2, b)$, and in this presentation we report on computations and visualizations which attempt to answer this question. We present conjectures suggested by these experimental results and theorems that we proved.