

Seminar/Talk

The ADE affair

Peter J. Cameron
University of St Andrews, UK

Abstract: In 1978, Vladimir Arnold described the problem of explaining the connections between the many and varied occurrences of the Coxeter—Dynkin diagrams of type ADE throughout mathematics as a modern equivalent of a Hilbert problem. He pointed to their occurrences in the 3-dimensional rotation groups (the Platonic solids), categories of linear spaces and maps, singularities of algebraic hypersurfaces, and finite Coxeter groups. Since then, other occurrences have come to light, including graphs with least eigenvalue -2 , asymptotically flat spacetimes, and cluster algebras. As you see, these areas cover a very great deal of mathematics! I cannot talk about all of the connections, but I want to give you a flavour of this rich subject by describing some of the work where I have been involved.

- **Data:** 19 outubro 2022, 14h30min;
- **Local:** Sala de Reuniões, Departamento de Matemática, UBI.