



DEPARTMENT OF MATHEMATICS

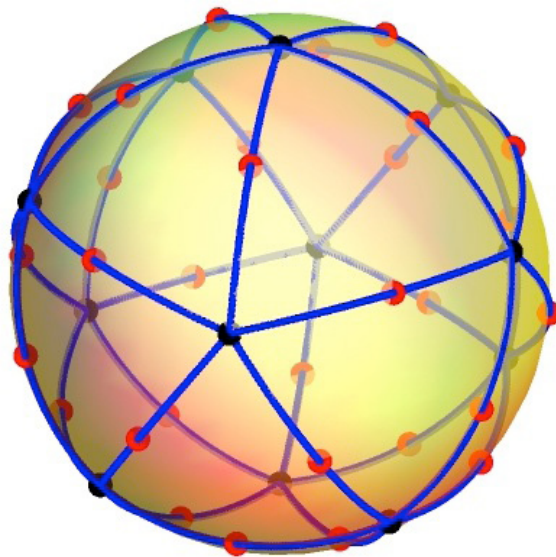
Fall 2023 Colloquium Series

Clocks, Parking Garages, and the Solvability of the Quintic: A Friendly Introduction to Monodromy

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Imagine the hands on a clock. For every complete the minute hand makes, the seconds hand makes 60, while the hour hand only goes one twelfth of the way. We may think of the hour hand as generating a group such that when we “move” twelve times then we get back to where we started. This is the elementary concept of a monodromy group. In this talk, we give a gentle introduction to a historical mathematical concept which relates calculus, linear algebra, differential equations, and group theory into one neat theory called “monodromy”. We explore lots of real world applications, including why it’s so easy to get lost in parking garages, and present some open problems in the field. We end the talk with a discussion of how this is all related to solving polynomial equations, such as Abel’s famous theorem on the insolubility of the quintic by radicals.



October 27, 2023
Friday

4:00 PM
BSS 166

FOR MORE INFO GO TO [HTTPS://MATH.HUMBOLDT.EDU/GET-INVOLVED/MATHEMATICS-COLLOQUIUM](https://math.humboldt.edu/get-involved/mathematics-colloquium)

WE CORDIALLY INVITE YOU TO THE PRE-COLLOQUIUM TEA IN BSS 312
AT 3:30 PM