

Real monodromy action

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The monodromy group (over the complex numbers) is a geometric invariant that encodes the structure of the solutions for a parameterized family of polynomial systems and can be computed using numerical algebraic geometry. Since a naive extension to the real numbers is very restrictive, this talk will explore a new approach over the real numbers which is computed piece-wise to obtain tiered characteristics of the real solution set. This talk will conclude with an application in kinematics to help highlight the computational method and impact on calibration.