

## **Polynomial systems arising in the formal verification of programs**

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Multiple classical problems in the formal verification of programs such as reachability, termination, and template-based synthesis can be reduced to solving polynomial systems of equations. In this talk, I will describe the primary objects and these connections. In particular, I will show how the algebraic and geometric techniques can be applied, enhancing the scalability and completeness for such problems.

This is based on joint works with Erdenebayar Bayarmagnai and with Jasper Teunen.