

## Multivariate Chebyshev polynomials in algebraic signal processing

---

**04.09****Bastian Seifert***(Universität Würzburg, Germany)***Time:** Friday 26.07., 10:30 - 11:00, Room HS 6

**Abstract:** Algebraic signal processing theory is a unified setting for various linear signal processing concepts. In this setting one can derive fast algorithms for the computation of Fourier transforms of suitable signal models based on a decomposition property of polynomials. In this talk we first give a short introduction to algebraic signal processing theory. Then we will explain why the multivariate Chebyshev polynomials associated to root systems are powerful building blocks for signal models. Furthermore we present a geometric interpretation of the fast algorithms corresponding to the multivariate Chebyshev polynomials.