

# Mathematics Colloquium

## Linear Preservers - From Multiplier Sequences to Sector Preservers and Beyond

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Cal State, Fresno

Friday, November 2, 2018  
4:10 – 5 p.m.  
Building 53 Room 206

### Abstract

In this talk we will introduce the notion of zero location preserving operators on the ring of polynomials  $\mathbb{R}[x]$ , and will briefly discuss the seminal work of J. Borcea and P. Brändén classifying all linear preservers on circular domains. As a special case, we will treat reality preserving linear operators and multiplier sequences, and we will close the talk with a recent result on sector preservers. We will highlight some student contributions to the literature these topics, and state some open problems which are accessible to the interested student and faculty supervisor

*About the speaker:* Tamás Forgács is a Professor of Mathematics at the California State University, Fresno, where he has worked since 2007. He has held visiting positions at the University of Hawai'i and at Brigham Young University. His research focuses on the study of the zero distribution of entire functions, and on multiplier sequences. He has obtained \$1.5M in NSF funding, some of which supported the Fresno State Math REU and the nationwide FURST program. He enjoys working with students, and has twelve student coauthors on peer reviewed publications. In his free time, he enjoys hiking in the Sierras and working on cars.

Cookies will be provided before the talk at 4 p.m.  
in the same room as the talk, Building 53 Room 206.