GEORGE LABAHN, Cheriton School of Computer Science
Conditioning of the Generalized Hankel Eigenvalue Problem

Problems such as the construction of a sparse black box polynomial and finding poles of Padé approximants are examples of a generalized eigenvalue problem for Hankel matrices. In this talk we discuss the the numerical issues that come up when such problems are given in fixed precision arithmetic. A basic tool in this study is information on the condition number of Vandermonde matrices with complex entries.

This is joint work with B. Beckermann and G. Golub.