

## **Pólya frequency sequences and functions**

Apoorva Khare, Indian Institute of Science

We survey some of the historical developments in total positivity, with an emphasis on Pólya frequency (PF) sequences and PF functions. This includes a classification of all PF functions and of "one-sided PF sequences" via the Laguerre-- Pólya classes of entire functions. We next present a reformulation in terms of probability distributions (or "frequencies"), and conclude by discussing some classifications of the post-composition operations that preserve such totally positive kernels. The final part is joint with Alexander Belton, Dominique Guillot, and Mihai Putinar.