Abstract

Subject: Global Bounds on Stable Polynomials

Classical Szász's inequality gives bounds on modules of polynomials which do not have zeros in the upper half-plane (polynomials belonging to the Pólya calss). Our aim is to improve original Szász's inequality and obtain two variables Szász type inequality using determinantal representations of multivariable polynomials. Next we show, that one can use this two variables inequality to prove an inequality for arbitrary numer of variables. In addition, let us mention, that only recently multivariable Szász type inequatlities have been considered.