HESTER GRAVES, IDA/CCS

The minimal Euclidean function on $\mathbb{Z}[i]$

Ram Murty and his school changed the study of Euclidean algorithms in number fields with class number one by finding growth results on sizes of pre-images of functions. Every Euclidean domain R has a minimal Euclidean function ϕ_R. We introduce the first computable minimal Euclidean function for a non-trivial number field, $\phi_{\mathbb{Z}[i]}$.