CORR 2001-28

Stirling Numbers for Complex Arguments: Asymptotics and Identities

Graeme Kemkes*, Chiu Fan Lee*, Donatella Merlini*, Bruce Richmond

Abstract We derive asymptotic expansions for the Stirling numbers of real arguments as defined by Flajolet and Prodinger. We also generalize certain classical identities for Stirling numbers with integral arguments to real or complex arguments.

Keywords Stirling numbers, asymptotic enumeration.

AMS subject classification 5A05, 5A16