COEFFICIENT INEQUALITIES FOR CERTAIN SUBCLASSES OF
ANALYTIC FUNCTIONS AND THEIR APPLICATIONS INVOLVING
THE OWA–SRIVASTAVA OPERATOR OF FRACTIONAL CALCULUS

C. RAMACHANDRAN, S. SIVASUBRAMANIAN,
H. M. SRIVASTAVA AND A. SWAMINATHAN

Abstract. The purpose of the present paper is to derive several Fekete-Szegö type coefficient
inequalities for certain subclasses of normalized analytic functions \( f(z) \) defined in the open
unit disk. Various applications of our main results involving (for example) the Owa-Srivastava
operator of fractional calculus are also considered. Thus, as one of these applications of our
result, we obtain the Fekete-Szegö type inequality for a class of normalized analytic functions,
which is defined here by means of the Hadamard product (or convolution) and the Owa-Srivastava
operator.

Keywords and phrases: coefficient inequalities, analytic functions, starlike functions, convex functions,
principle of subordination, Fekete-Szegö problem, fractional integrals and fractional derivatives, Owa-
Srivastava operator of fractional calculus, Hadamard product (or convolution).

REFERENCES

Equations, North-Holland Mathematics Studies, Vol. 204, Elsevier (North-Holland) Science Publishers,
the Conference on Complex Analysis (Z. Li, F. Ren, L. Yang, and S. Zhang, Editors), pp. 157–169,
Massachusetts, 1994.
Differential Equations, to Methods of Their Solutions and Some of Their Applications, Mathematics in
[9] V. RAVICHANDRAN, A. GANGADHARAN AND M. DARUS, Fekete-Szegö inequality for certain class of


