

# SUBCLASSES OF FUNCTIONS QUASI-CONVEX WITH RESPECT TO OTHER POINTS

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## **Abstract**

In 1959, Sakaguchi introduced the class of functions starlike with respect to (w.r.t) symmetric points. El-Ashwah and Thomas in 1987, introduced two more classes, namely starlike w.r.t conjugate points and starlike w.r.t symmetric conjugate points. In 1977, Das and Singh considered the class of functions convex w.r.t symmetric points and functions close-to-convex w.r.t symmetric points. Now, we consider functions of the form  $f(z) = z + \sum_{n=2}^{\infty} a_n z^n$  belonging to the class of functions quasi-convex w.r.t symmetric points, functions quasi-convex w.r.t conjugate points and functions quasi-convex w.r.t symmetric conjugate points. Sharp upper bounds for  $|a_2|$ ,  $|a_3|$ ,  $|a_4|$  and the Fekete-Szegő functional are considered for these classes.

**Keywords:** quasi-convex, functions starlike w.r.t symmetric points, w.r.t.conjugate points, w.r.t symmetric conjugate points, Fekete-Szegő functional.