

**Bonfert-Taylor, Petra**

**Jørgensen's inequality for discrete convergence groups.** (English) Zbl 0945.30035  
*Ann. Acad. Sci. Fenn., Math.* 25, No. 1, 131-150 (2000).

We explore in this paper whether certain fundamental properties of the action of Kleinian groups on the Riemann sphere extend to the action of discrete convergence groups on  $\overline{\mathbf{R}^2}$ . A Jørgensen inequality for discrete  $K$ -quasiconformal groups is developed, and it is shown that such an inequality depends naturally on the quasiconformal dilatation  $K$ . Furthermore, it is established that no such inequality can hold for general discrete convergence groups. In the discontinuous case a universal constraint on discreteness is formulated for both quasiconformal and general convergence groups.

**MSC:**

- 30F40 Kleinian groups (aspects of compact Riemann surfaces and uniformization) Cited in 2 Documents
- 57S30 Discontinuous groups of transformations
- 30C62 Quasiconformal mappings in the complex plane
- 20H10 Fuchsian groups and their generalizations (group-theoretic aspects)

**Keywords:**

convergence groups; quasiconformal groups; Kleinian groups; Jørgensen's inequality

**Full Text:** [EMIS](#) [EuDML](#)