Equivariant Forms: Structure and Geometry

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Abstract. In this paper we study the notion of equivariant forms introduced in the authors' previous works. In particular, we completely classify all the equivariant forms for a subgroup of $\mathrm{SL}_2(\mathbb{Z})$ by means of the cross-ratio, the weight 2 modular forms, the quasimodular forms, as well as differential forms of a Riemann surface and sections of a canonical line bundle.