ABSTRACT. The Koebe-Andreev-Thurston theorem states that for any triangulation of a closed orientable surface Σ_g of genus g which is covered by a simple graph in the universal cover, there exists a unique metric of curvature $1, 0$ or -1 on the surface depending on whether $g = 0, 1$ or ≥ 2 such that the surface with this metric admits a circle packing with combinatorics given by the triangulation. Furthermore, the circle packing is essentially rigid, that is, unique up to conformal automorphisms of the surface isotopic to the identity.

In this paper, we consider projective structures on the surface where circle packings are also defined. We show that the space of projective structures on a surface of genus $g \geq 2$ which admits a circle packing contains a neigborhood of the Koebe-Andreev-Thurston structure homeomorphic to $\mathbb{R}^{6g-6}$. We furthemore show that if a circle packing consists of one circle, then the space is globally homeomorphic to $\mathbb{R}^{6g-6}$ and that the circle packing is rigid.