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Understanding the mechanical properties of fibrous network as complex as stone wool materials requires a relevant description of their microstructure and architecture. In this study, different methods have been proposed to characterize the fibre orientation, diameter and length of fibres as well as the number density of fibre contacts. The methods are based on image analysis of 3D datasets which have been obtained by x-ray tomography. Validation of the proposed methods was demonstrated by testing generated virtual fibrous network with known fibre characteristics.

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