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Sommario/riassunto

Both naturally-occurring and man-made materials are often heterogeneous materials formed of various constituents with different properties and behaviours. Studies are usually carried out on volumes of materials that contain a large number of heterogeneities. Describing these media by using appropriate mathematical models to describe each constituent turns out to be an intractable problem. Instead they are generally investigated by using an equivalent macroscopic description - relative to the microscopic heterogeneity scale - which describes the overall behaviour of the media. Fundamental que