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Sommario/riassunto	This presentation deals with simulation studies that will be interpreted as numerical experiments. Porous structures are modelled in three dimensions (microstructure models). Heat transfer and pressure drop of the flow through a porosity is analysed using the numerical solution of the Navier-Stokes equations (CFD). Empirical correlations for simplified calculations are presented that can be used by engineers for rough estimates and design of components with porosities like metal foam.