

Multiscale FEM Analysis of Mass Concrete Structures - Case Study

W.R. Leal da Silva and Z. Bittnar

This abstract deals with the multiscale modelling of mass concrete structures. A finite element-based multiscale model is developed in order to investigate the thermal behaviour of hydrating concrete. The predicted temperature evolution is validated successfully with a concrete block of dimensions of 19.6 m x 10.1 m x 2.5 m. This investigation is very promising, particularly in the area of concrete industry. Thus the abstract is accepted as is to be presented in ICCM2015.