Abstract

A discretisation method based on the space-time method for a boundary integral equation is discussed. The space-time method treats the time direction as an additional spatial coordinate and discretises a equation in the space-time domain. In this talk, the heat equation in 2D is solved by the boundary element method and the space-time method. The boundary integral equation for this problem is defined on the surface of a space-time domain in 3D. Hence, we can discretise this integral equation with arbitrary triangular mesh on this surface. The computational time and accuracy of this method are verified thorough some numerical examples.