



Department of Mathematics
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Colloquium

The Fundamental Solutions and Boundary Integral Equations of Coupled Thermoelastodynamics in 2D and 3D cases

Prof. Bakhyt ALIPOVA

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Abstract

Method of the boundary integral equations (BIEM) was constructed for solving a transient value problem of coupled thermoelastodynamics in 2D and 3D cases at action of the non-stationary concentrated mass forces and thermal sources. Fourier-Laplace transformations of Tensors of Green and Tensors of fundamental stresses for thermoelastic media are constructed, their properties are investigated. The Method of the Boundary Integral Equations (BIEM) for definition of a thermostresses condition of media is developed at the given non-stationary loadings and thermal flow on its border in 2D and 3D cases for different media. The dynamic analogue of Somigliana's Formulae is obtained.

Date: June 15, 2017 (Thursday)
Time: 11:00am ~ 12:00 noon
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome