

Table of Contents

Preface and Prologue

The Influence of Equivalent Contact Area Computation in Extended Node to Surface

Contact Elements

G. Wautelet and J.P. Ponthot 1

A Partitioned Formulation for FEM/BEM Coupling in Contact Problems Using Localized Lagrange Multipliers

J.A. González, K.C. Park and R. Abascal 23

On Steady Wear States for Monotonic Relative Sliding of Contacting Bodies

I. Páczelt and Z. Mróz 49

Anisotropic Contact and Wear Simulation Using Boundary Elements

L. Rodríguez-Tembleque, F. M.H.Aliabadi and R. Abascal 73

Life Assessment in Fretting Fatigue

C. Navarro, J. Vázquez and J. Domínguez 99

Transient Dynamic Analysis of Cracked Multifield Solids with Consideration of Crack-Face Contact and Semi-Permeable Electric/Magnetic Boundary Conditions

M. Wünsche, A. Sáez, F. García-Sánchez, C.Z. Zhang and J. Domínguez 123

BEM and Tangent Operator Technique Applied to Analysis of Contact Problems

S.G. Ferreira Cordeiro and E.D. Leonel 151

Effect of Friction on the Size of the Near-Tip Contact Zone in a Penny-Shaped Interface Crack

E. Graciani, V. Mantič and F. París 179

Closed-Form Solution of the Frictional Sliding Contact Problem for an Orthotropic Elastic Half-Plane Indented by a Wedge-Shaped Punch

A. Kucuksucu, M.A. Guler and A. Avcı 203

Nonlinear Time Spectral Analysis for a Dynamic Contact Model with Buckling for an Elastic Plate

A.D. Muradova and G.E. Stavroulakis 227