

Journal of Tribology

April,
2010 |
Volume
132 |
Issue 2

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Review Articles

Revisiting the Cattaneo–Mindlin Concept of Interfacial Slip in Tangentially Loaded Compliant Bodies

Izhak Etsion

J.

Tribol. 2010;132(2):020801-020801-9.
doi:10.1115/1.4001238.

Research Papers: Contact Mechanics

Heat Partition in Sliding Contacts

R. Bosman and M. B. de Rooij

J.

Tribol. 2010;132(2):021401-021401-9.
doi:10.1115/1.4000693.

Transient Thermal Effects and

Simulation of Fretting Wear in
Half-Plane Geometries—Part II:

Analysis of the Transient Wear Problem Using Quadratic Programming

D. Nowell

J.

Tribol. 2010;132(2):021402-021402-8.
doi:10.1115/1.4000733.

Partial Slip Contact Analysis on
Three-Dimensional Elastic Layered

Half Space

Zhan-Jiang Wang, Wen-Zhong Wang, Hui Wang, Dong Zhu and Yuan-Zhong Hu

J.

Tribol. 2010;132(2):021403-021403-12.
doi:10.1115/1.4001011.

A Voronoi FE Fatigue Damage
Model for Life Scatter in Rolling

Contacts

Behrooz Jalalahmadi and Farshid Sadeghi

J.

Tribol. 2010;132(2):021404-021404-14.
doi:10.1115/1.4001012.

Research Papers: Elastohydrodynamic
Lubrication

A Numerical Study of Friction in Isothermal EHD Rolling-Sliding Sphere-Plane Contacts With Spinning

H. Dormois, N. Fillot, W. Habchi, G. Dalmaz, P. Vergne, G. E. Morales-Espejel and E. Ioannides

J.

Tribol.. 2010;132(2):021501-021501-10.
doi:10.1115/1.4001104.

An Efficient Elastic Displacement Analysis Procedure for Simulating

Transient Conformal-Contact Elastohydrodynamic Lubrication Systems

Shangwu Xiong, Chih Lin, Yansong Wang, Wing Kam Liu and Q. Jane Wang

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Tribol.. 2010;132(2):021502-021502-9.

Research Papers: Friction & Wear

doi:10.1115/1.4001120.

Design and Performance of Slurry

Erosion Tester

A. Abouel-Kasem, Y. M. Abd-elrhman, K. M. Emara and S. M. Ahmed

J.

Tribol.. 2010;132(2):021601-021601-10.

Erosive Wear Model of Slurry Pump Impeller

doi:10.1115/1.4001449.

Veselin Batalović

J.

Tribol.. 2010;132(2):021602-021602-5.

Wear Mode Comparison of High-Performance Inconel Alloys

doi:10.1115/1.4001167.

Grant R. Fox and Hong Liang

J.

Tribol.. 2010;132(2):021603-021603-6.

Research Papers: Hydrodynamic Lubrication

doi:10.1115/1.4001170.

A Gas Lubrication Equation for

High Knudsen Number Flows and Striated Rough Surfaces

James White

J.

Tribol.. 2010;132(2):021701-021701-9.

Elastohydrodynamics Applied to Active Tilting-Pad Journal Bearings

doi:10.1115/1.4001023.

Asger M. Haugaard and Ilmar F. Santos

J.

Tribol.. 2010;132(2):021702-021702-10.

Influence of Wear on the Performance of Multirecess

doi:10.1115/1.4000721.

Hydrostatic Journal Bearing Operating With Micropolar Lubricant

E. Rajasekhar Nicodemus and Satish C. Sharma

J.

Tribol.. 2010;132(2):021703-021703-11.

Thermohydrodynamic Analyses of Bump Air Foil Bearings With

doi:10.1115/1.4000940.

Detailed Thermal Model of Foil Structures and Rotor

Donghyun Lee and Daejong Kim

J.

Tribol. 2010;132(2):021704-021704-12.
doi:10.1115/1.4001014.

A Lattice-Boltzmann Approach to Fluid Film Lubrication

Bogdan R. Kucinski and Abdollah A. Afjeh

J.

Tribol. 2010;132(2):021705-021705-7.
doi:10.1115/1.4000694.

Analytical Model of Bump-Type Foil Bearings Using a Link-Spring

Structure and a Finite-Element Shell Model

Kai Feng and Shigehiko Kaneko

J.

Tribol. 2010;132(2):021706-021706-11.
doi:10.1115/1.4001169.

Research Papers: Magnetic Storage

The Critical Conditions for Tribology Demagnetization of Perpendicular Magnetic Recording Disk Under Sliding Contact

W. F. Jiang and D. F. Diao

J.

Tribol. 2010;132(2):021901-021901-10.
doi:10.1115/1.4000734.

Experimental and FEA Scratch of Magnetic Storage Thin-Film Disks

to Correlate Magnetic Signal Degradation With Permanent Deformation

Raja R. Katta, Andreas A. Polycarpou, Sung-Chang Lee and Mike Suk

J.

Tribol. 2010;132(2):021902-021902-11.
doi:10.1115/1.4000848.

Research Papers: Micro-Nano Tribology

A Scale Dependent Simulation of Liquid Lubricated Textured Surfaces

Robert L. Jackson

J.

Tribol. 2010;132(2):022001-022001-6.
doi:10.1115/1.4001105.

Research Papers: Other (Seals, Manufacturing)

A Numerical Study of Labyrinth Seal Flutter

L. di Mare, M. Imregun, J. S. Green and A. I. Sayma

J.

Tribol. 2010;132(2):022201-022201-7.
doi:10.1115/1.3204774.

Experimental Study of the Performance of Static Seals Based on

Measurements of Real Contact Area Using Thin Polycarbonate Films

Isami Nitta and Yoshio Matsuzaki

J.

Tribol.. 2010;132(2):022202-022202-7.
doi:10.1115/1.4000838.

Technical Briefs

Assessment of Elliptical Conformal Hertz Analysis Applied to Constant Velocity Joints

Chul-Hee Lee and Andreas A. Polycarpou

J.

Tribol.. 2010;132(2):024501-024501-3.
doi:10.1115/1.4000735.

Flying Clearance Distribution With Thermal Flying Height Control

in Hard Disk Drives

Sung-Chang Lee, George W. Tyndall and Mike Suk

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Tribol.. 2010;132(2):024502-024502-4.
doi:10.1115/1.4001024.

An Analytical Model for the Basic Design Calculations of Journal

Bearings

R. K. Naffin and L. Chang

J.

Tribol.. 2010;132(2):024503-024503-7.
doi:10.1115/1.4000941.

Analytical Solution to the Hydrodynamic Lubrication of Fan-

Shaped Thrust Step Bearings

Shuangbiao Liu, W. Wayne Chen and Diann Y. Hua

J.

Tribol.. 2010;132(2):024504-024504-8.
doi:10.1115/1.4001013.

A Simple Method to Calculate Contact Factor Used in Average Flow

Model

Fanming Meng, Q. Jane Wang, Diann Hua and Shuangbiao Liu

J.

Tribol.. 2010;132(2):024505-024505-4.
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