Research articles

Slowing the evolution of insecticide resistance in mosquitoes: a mathematical model 2127
S. A. Gourley, R. Liu & J. Wu

Resonant oscillations of an inhomogeneous gas between concentric spheres 2149
B. R. Seymour, M. P. Mortell & D. E. Amundsen

Relative equilibria of point vortices and the fundamental theorem of algebra 2168
H. Aref

Criteria for convective versus absolute string instability in car-following models 2185
J. A. Ward & R. E. Wilson

A mechanism for enhanced static sliding resistance owing to surface waviness 2209
J. T. Waters & P. R. Curducu

Variational estimates for the effective response and field statistics in thermoelastic composites with intra-phase property fluctuations 2224
N. Lallement, P. Ponte Castañeda & P. Suquet

An investigation into the feasibility of internal strain measurement in solids by correlation of ultrasonic images 2247
A. I. Bowler, B. W. Drinkwater & P. D. Wilcox

Identifying the ‘inorganic gene’ for high-temperature piezoelectric perovskites through statistical learning 2271
P. V. Balachandran, S. R. Broderick & K. Rajan

The effect of shear on acoustic cloaking 2291
J. D. Smith & P. E. Verrier

Quantification of fibre polymerization through Fourier space image analysis 2310
A. Nekouzadeh & G. M. Genin

The influence of disorder on deformations in semiflexible networks 2330
J. R. Blundell & E. M. Terentjev

The time machine: a simulation approach for stochastic trees 2350
A. Jasra, M. De Iorio & M. Chadeau-Hyam

The number and types of all possible rotational symmetries for flexoelectric tensors 2369
H. Le Quang & Q.-C. He

Random search with k-prototypes algorithm for clustering mixed datasets 2387
D.-T. Pham, M. M. Suarez-Alvarez & Y. I. Prostov

Canards and curvature: the ‘smallness of ’ in slow–fast dynamics 2404
M. Desroches & M. R. Jeffrey

Corrections

A study on the principle of maximum dissipation for coupled and non-coupled non-isothermal processes in materials 2422
K. Hackl, F. D. Fischer & J. Svoboda

On the two-dimensional sloshing problem 2427
V. Kozlov, N. Kuznetsov & O. Motygin