Review articles
Bioenergy research: a new paradigm in multidisciplinary research
U. C. Kalluri & M. Keller

Research articles
A theoretical study of diffusional transport over the alveolar surfactant layer
C. Åberg, E. Sparr, M. Larsson & H. Wennerström

Incomplete and noisy network data as a percolation process
M. P. H. Stumpf & C. Wiuf

Economically optimal timing for crop disease control under uncertainty: an options approach
M. L. N. Mbah, G. A. Forster, J. H. Wesseler & C. A. Gilligan

Reducing number entry errors: solving a widespread, serious problem
H. Thimbleby & P. Cairns

Fish in a ring: spatio-temporal pattern formation in one-dimensional animal groups
N. Abad & M. Portilho

Risk factors for the evolutionary emergence of pathogens
H. K. Alexander & T. Day

Characterization of age-related variation in corneal biomechanical properties
A. Elsheikh, B. Geraghty, P. Rama, M. Campanelli & K. M. Meek

Why do insects have such a high density of flow-sensing hairs? Insights from the hydromechanics of biomimetic MEMS sensors
J. Casas, T. Steinmann & G. Krijnen

Reports
Visualizing biointerfaces in three dimensions: electron tomography of the bone–hydroxyapatite interface