

Subject Index

- 3-D aquifer responses
 Simulation of seawater intrusion in coastal aquifers: Some typical responses 317
- Absorption spectra
 A cylindrical furnace for absorption spectral studies 285
- Acoustic emission
 A model with nonzero rise time for AE signals 465
- Aerodynamic modelling
 Surface pressure model for simple delta wings at high angles of attack 495
- Aerodynamic stability
 A note on stability of motion of a projectile 379
- Automation
 A second-order autocorrelator for single-shot measurement of femtosecond laser pulse durations 603
- Axially symmetric bodies
 Axial symmetric rotation of a partially immersed body in a liquid with a surfactant layer 353
- Backpropagation algorithm
 Application of chaotic noise reduction techniques to chaotic data trained by ANN 485
- Beamlines
 Optical design of a beam stop for Indus-2 using finite element heat transfer studies 591
- Beams
 Advances in nonlinear vibration analysis of structures . Part-1. Beams 243
- Bluff body flows
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Blumlein-spark gap
 Design and construction of double-Blumlein HV pulse power supply 475
- Capillary fringe
 Modelling flow through unsaturated zones: Sensitivity to unsaturated soil properties 517
- Cast products
 Segregation in cast products 5
- Casting
 Finite element modelling of solidification phenomena 103
- Coastal aquifers
 Simulation of sea water intrusion in coastal aquifers: Some typical responses 317
- Coherent structures
 Fundamentally excited flow past a surface - mouthed rib. Part I: Turbulent structure characterisation 387
 Fundamentally excited flow past a surface-mounted rib: Part II: Kinetic energy budget details 413
- Collector channel
 A note on critical flow section in collector channels 439
- Columnar-to-equiaxed transition (CET)
 Segregation in cast products 5
- Compact strip processing
 Thin-slab casting - New possibilities 163
- Complex moduli
 Effect of dynamic visco-elasticity on vertical and torsional vibrations of half-space 371
- Continuous casting
 Segregation in cast products 5
 Solidification control in continuous casting of steel 179
- Correlation
 Robust correlation tracker 227
- Critical flow section
 A note on critical flow section in collector channels 439
- Crystal growth defects
 Modelling of transport phenomena and defects in crystal growth processes 71
- Delta wings
 Surface pressure model for simple delta wings at high angles of attack 495
- Density-dependent flow and transport
 Simulation of sea water intrusion in coastal aquifers: Some typical responses 317

- Directional solidification
 Effect of thermosolutal convection on directional solidification 121
- Double-diffusive convection
 Modelling of convection during solidification of metal and alloys 139
- Double exponential model
 A model with nonzero rise time for AE signals 465
- Early solidification
 Solidification control in continuous casting of steel 179
- Electrical furnace
 A cylindrical furnace for absorption spectral studies 285
- Electronic control system
 An indigenously developed electronic control system for Langmuir-blodgett film deposition set-up 213
- Embedding technique
 Application of optimisation techniques in groundwater quantity and quality management 293
- Experiments
 Solidification under microgravity 59
- Exponential model
 A model with nonzero rise time for AE signals 465
- Femtosecond laser pulses
 A second-order autocorrelator for single-shot measurement of femtosecond laser pulse durations 603
- Fibre-reinforced medium
 Surface waves in fibre-reinforced anisotropic elastic media 363
- Finite element analysis
 Optical design of a beam stop for Indus-2 using finite element heat transfer studies 591
- Finite element method
 Finite element modelling of solidification phenomena 103
 Modelling flow through unsaturated zone: Sensitivity to unsaturated soil properties 517
- Finite element model
 Solidification in plasma arc welding 199
- Finite element simulation
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Finite volume discretization
 Modelling of transport phenomena and defects in crystal growth processes 71
- Fins
 A note on stability of motion of a projectile 379
- Free radicals
 A cylindrical furnace for adsorption spectral studies 285
- Ground water quantity and quality management
 Application of optimisation techniques in ground water quantity and quality management 293
- Heat exchangers
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Heat load
 Optical design of a beam stop for Indus-2 using finite element heat transfer studies 591
- Heat transfer
 Finite element modelling of solidification phenomena 103
- High angles of attack
 Surface pressure model for simple delta wings at high angles of attack 495
- High discrimination
 Radar signal design problem with neural network processing 237
- High temperature species
 A cylindrical furnace for absorption spectral studies 285
- Higher order moments
 Fundamentally excited flow past a surface-mounted rib. Part II: Kinetic energy budget details 413
- Hot rolling
 Thin-slab casting - New possibilities 163
- Hydraulics
 A note on critical flow section in collector channels 439

- Image processing
 Robust correlation tracker 227
- Indus-2
 Optical design of a beam stop for Indus-2 using finite element heat transfer studies 591
- Internal flows
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Keyhole technique
 Solidification behaviour in plasma arc welding 199
- Kinetic energy budget
 Fundamentally excited flow past a surface - mouthed rib:Part II: Kinetic energy budget details 413
- Langmuir-Blodgett
 An indigenously developed electronic control system for langmuir-blodgett film deposition set-up 213
- Laplace-Hankel transforms
 Disturbance due to mechanical and thermal sources in a generalized thermo-microstretch elastic half-space 529
- Logistic map
 Application of chaotic noise reduction techniques to chaotic data trained by ANN 485
- Love waves
 Surface waves in fibre-reinforced anisotropic elastic media 363
- Lubrication
 Solidification control in continuous casting of steel 179
- Macro- and microsegregation
 Segregation in cast products 5
- Macrosegregation
 Effect of thermosolutal convection on directional solidification 121
- Manufacturing
 Modeling analysis and acceleration of a printed circuit board fabrication process 447
- Mechanical/thermal/impulsive sources
 Disturbance due to mechanical and thermal sources in a generalized thermo-microstretch elastic half-space 529
- Merit factor
 Radar signal design problem with neural network processing 237
- Metastability
 Solidification microstructure development 25
- Microgravity
 Solidification under microgravity 59
- Microsegregation
 Solidification control in continuous casting of steel 179
- Micro-stepping
 An indigenously developed electronic control system for Langmuir-Blodgett film deposition set-up 213
- Microstructure
 Solidification microstructure development 25
- Mode of solidification
 Solidification control in continuous casting of steel 179
- Modelling
 Modelling analysis and acceleration of a printed circuit board fabrication process PE 915
- Modelling of solidification
 Modelling of convection during solidification of metal and alloys 139
- Mould oscillation
 Solidification control in continuous casting of steel 179
- Multiple adaptive grid generation
 Modelling of transport phenomena and defects in crystal growth processes 71
- Mushy region
 Modelling of convection during solidification of metal and alloys 139
- Nd: glass laser
 A second-order autocorrelator for single-shot measurement of femtosecond laser pulse durations 603
- Neural network processing
 Radar signal design problem with neural network processing 237
- New finite elements
 A set of pathological tests to validate new finite elements 549
- Noise reduction
 Application of chaotic noise reduction techniques to chaotic data trained by ANN 485

- Nonlinear
 Advances in nonlinear vibration analysis of structures Part-1 Beams 243
- Open channel flow
 A note on critical flow section in collector channels 439
- Optimisation model
 Application of optimisation techniques in groundwater quantity and quality management 293
- Optimisation techniques
 Application of optimisation techniques in ground water quantity and quality management 293
- Patch test
 A set of pathological tests to validate new finite elements 549
- Pathological tests
 A set of pathological tests to validate new finite elements 549
- Pattern formation
 Solidification microstructure development 25
- Pattern recognition method
 Fundamentally exited flow past a surface-mounted rib. Part I: Turbulent structure characterisation 387
 Fundamentally exited flow past a surface-mounted rib. Part II: Kinetic energy budget details 413
- Peaky autocorrelation
 Radar signal design problem with neural network processing 237
- Phase jitter
 Fundamentally exited flow past a surface-mounted rib. Part II: Kinetic energy budget details 387
- Plasma arc welding
 Solidification behavior in plasma welding 199
- Potential function
 A note on stability of motion of a projectile 379
- Projectiles
 A note on stability of motion of a projectile 379
- Pulse forming line
 Design and construction of double -Blumlein HV pulse power supply 475
- Pulse power supply
 Design and construction of double-Blumlein pulse power supply 475
- Quadrant analysis
 Fundamentally exited flow past a surface-mounted rib. Part I: Turbulent structure characterisation 387
- Queueing
 Modelling analysis and acceleration of printed circuit board fabrication process 447
- Radar signal design
 Radar signal design problem with neural network processing 237
- Rapid solidification
 Rapid solidification in thermal spray deposition: Microstructure and modelling 35
- Rayleigh waves
 Surfaces waves in fibre-reinforced anisotropic elastic media 363
- Response matrix approach
 Application of optimisation techniques in groundwater quantity and quality management 293
- Sabot
 A note on stability of motion of a projectile 379
- Seawater intrusion
 Simulation of seawater intrusion in coastal aquifers: Some typical responses 317
- Second harmonic radiation
 A second-order autocorrelator for single-shot measurement of femtosecond laser pulse duration 603
- Signal model
 A model with nonzero rise time for AE signals 465
- Simulation model
 Application of optimisation techniques in groundwater quantity and quality management 293
- Slow rotation
 Axial symmetric rotation of a partially immersed body in a liquid with a surfactant layer 353
- Solidification
 Solidification microstructure development 25

- Solidification under microgravity 59
 Finite element modelling of solidification phenomena 103
- Solidification behaviour
 Solidification behaviour in plasma arc welding 199
- Solidification of metals and alloys
 Modelling of convection during solidification of metal and alloys 139
- Space shuttle
 Solidification under microgravity 59
- Spatially varied flow
 A note on critical flow section in collector channels 439
- Spin
 A note on stability of motion of a projectile 379
- Splats
 Rapid solidification in thermal spray deposition: Microstructure and modelling 35
- Stoneley waves
 Surface waves in fibre-reinforced anisotropic elastic media 363
- Strength and ductility of steel
 Solidification control in continuous casting of steel 179
- Surface pressure
 Surface pressure model for simple delta wings at high angles of attack 495
- Surface waves
 Surface waves in fibre-reinforced anitropic elastic media 363
- Surfactant layer
 Axial symmetric rotation of a partially immersed body in a liquid with a surfactant layer 353
- Synchrotron source
 Optimal design of a beam stop for Indus-2 using finite element heat transfer studies 591
- Tangential displacement
 Effect of dynamic visco-elasticity on vertical and torsional vibrationa of a half-space 371
- Thermal spray coating
 Rapid solidification in thermal spray deposition: Microstructure and modelling 35
- Thermal stress
 Finite element modelling of solidification phenomena 103
- Thermal stresses
 Modelling of transport phenomena and defects in crystal growth processes 71
- Thermo-microstretch
 Disturbance due to mechanical and thermal sourses in a generalized thermo-microstretch elastic half-space 529
- Thermosolutal convection
 Effect of thermosolutal convection on directional solidification 121
- Thin-slab casting
 Thin-slab casting–New possiblities 163
- Torsional vibrations
 Effect of dynamic visco-elasticity on vertical and torsional vibrations of a half-space 371
- Trackers
 Robust correlation trackers 227
- Transport phenomena
 Modelling of transport phenomena and defects in crystal growth processes 71
- Turbulator
 Fundamentally excited flow past a surface-mounted rib. Part I: Turbulent structure characterisation 387
 Fundamentally excited flow past a surface - mounted rib. Part II: Kinetic energy budget details 413
- Turbulent flows
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Unsaturated zone
 Modelling flow through unsaturated zones: Sensitivity to unsaturated soil properities 517
- Visco-elasticity
 Effect of dynamic visco-elasticity on vertical and torsional vibrations of a half-space 371
- Velocity corection method
 Finite element simulation of internal flows with heat transfer using a velocity correction approach 251
- Water load
 Design and construction of double-Blumlein HV pulse power supply 475
- Welding parameters
 Solidification behaviour in plasma arc welding 199