INDEX

4-dimensional variational
assimilation (4D-VAR) 12
actuators 21, 22
_____, biaxially polarised 22
_____, shear 21, 22
_____, uniaxially polarised 22
adaptive grid 24
adaptive mesh refinement
technique (AMR) 25
adjoint equation 12
_____ method 1, 4, 5
_____ solution 12
Agra sandstone 23
Almora 18
altimeter data 1, 3
Anand Gnanadesikan 9
Ananda, M. B. 16,17,18,19
Anjali, K.
angular velocity 1, 16
Anilkumar, V. 30, 33
antiform 19
Anupama, T. S. 16
Arabian sea 3, 4, 10
Arjun 1
Asia 18
Assam earthquake 16
assimilation interval (AI) 12
atmosphere modelling 10
AVISO 3
back-propagation algorithm 27
bandwidth 31
_____ manager 28
_____ utilisation 28
Bangalore 18, 19
Basak, K. 20
Bay of Bengal 4
benchmark model 31
best-fit solutions 22
Bhatt, B. C. 19
Bhogle, Srinivas 1
Bhutan 16
biogeochemistry 1, 5, 6, 7
bioremedation 1, 24, 25
Birrik thrust 17
Borhola oil fields 1, 24
cantor sets 30
carbon 5
carbonate 19
cataclasis 20
Chlorophyll 9
circulation model, general (GCM) 1, 6,10, 11
Coastal Zone Color Scanner (CZCS) 9
cognitive network (CN) 1, 14
Compaq GS160/320 31
composite structures 21
Comprehensive Ocean Atmosphere Data
Set (COADS) 6
contact areas 30
control, model 21
_____, active vibration 21
_____, independent modal space (IMSC) 21
_____, linear quadratic regulator (LQRC) 21
convect motion 25
convective heating 10
Convex C3820 31
Cryptography 1, 27
Darjiling-Sikkim Himalayas 16
Darjiling-Sikkim-Tibet (DaSiT) Wedge 1
data acquisition module 29
data, altimeter 1, 3, 4
____ assimilation 1, 4, 9, 10
____, Special Sensor Microwave
Imager (SSM/I) 3
deformation bands 19
_____, crustal 16
_____ microstructures 19
degrees of freedom 10
Delhi 18
Delo Hill 16
Dileep Kumar, P. 16, 17, 18, 19
Dirichlet conditions 23
dissolved organic phosphate (DOP) 6, 7
distributed sensors 21
DNA suspensions 26
Drake Passage 5
duplex formation 17, 19, 20
earthquake, Bhuj 1, 17, 31
earthquakes 30
elastico-frictional 20
electromagnetic flux problem 23
e-mail services 31
encryption scheme, asymmetric 27
_____, symmetric 27
EPABX 31
_____ remote shelf 31
equidistribution principle 24

equivalent continuum 23, 24
_____ model 1, 23
error analysis 1
____ models, a priori 23
____, cancellation of 21
euphotic zone 9
European Centre for Medium Range Weather Forecasts (ECMWF) 11, 12
extension-bending 21, 22
extinction 19
extra-variational simplifications 21
fault, Chaman
file transfer protocol (ftp) 29
finite difference method 24
finite element formulation 25
____ element modelling (FEM) 1, 21, 23, 24
fluxes, diagnostic 6
_____, heat and salinity 6
_____, surface
fold-and-thrust belt, Darjiling Himalayan 19
fractal surfaces 1, 30
France 1, 3
functional analysis 23
Gangan Prathap 1, 21, 22, 23
Gangtok 17
Garhwal-Kumaon Himalayas 17
Gaur, V. K. 16, 17, 18, 19
gigabit network 31
Gish Transverse Zone (GTZ) 17
Global Positioning System (GPS) 1, 16
gneisses 17
Goswami, P. 11, 14, 15
gradient weighted moving finite element method (GWMFE) 24, 25
graphics accelerator 31
Great Triangulation Survey (GTS) 17
grid, uniform 11
___, zoom 11
Gupta, H. K. 1
Hanleh 18
Hathria 17
Hierarchical Data Format (HDF) 9, 10
high performance computing 31
Hilbert space 23
Himalayan, trans- 18
Himalayas 16-19
horizontal resolution (HR) 10
Hu-Washizu principle 23
hyperbolic 24
Indo-French Centre for Environmental Research (IFCER) 1
incidence rate 28
incubation period 28
Indian Ocean 3
Indian Ocean Model and Dynamics (INDOMOD) 4
Indian Plate 16
Indian-Eurasian plate 16
INDOMOD project 31
infection, force of 28
inplane deformation terms, neglect of 21
Intel Pentium III 31
Interactive Descriptive Language (IDL) 10
International GPS service for Geodynamics (IGS)
International Terrestrial Reference Frame (ITRF96)
internet 31
_____ access router 28
iron 9
Jamnagar 17
Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) 1
joint factor 23
Jorethang 17
Jorge Sarmiento 9
Kalimpong, West Bengal 17
Kalyani Devasena, C. 4, 5
Karakoram fault 19
Kitab 18
Krishna, A. P. 17
Krishna Mohan, T. R. 1, 25, 30
Kumar, A. 2, 26
Kyongnosla 17
Labha, West Bengal 17
Laboratory for Dynamic Meteorology (LMD) 11
Ladakh Himalayas 18, 19
Lagrange multipliers 12
Lagrangian description 24
Laplace equation, axisymmetric 23
Large Compute Server (LSC) 31
learning rate 28
least-squares approximations 23
Leh 18
leprosy programme 28
Levan Phu 11
Levitus 98 surface data 6
Lhasa 18
light scattering 9
lignite 19
Local Area Network (LAN) 28-30
Madras meridian 18

Main Boundary Thrust (MBT) 19
Main Central Thrust (MCT) 17
main memory 31
Management Information Base (MIB) 29
Marshall and Molteni 12
Marur, S. R. 21
Mashelkar, R. A. 1
Meteo-France 12
method of lines 24
Mindlin-Reissner theory 22
MIPS R10000 31
____ R12000 31
____ R14000 processors 31
model errors (ME) 12
_____, quasi-geostrophic (QC) 5
Modular Ocean Model (MOM) 31
momentum parameter 28
monitoring station 30
monsoon 3
monsoon forecast 1, 10
monsoon rainfall 10, 12
moving boundary problem 24
_____ grid methods 1, 24
Mukherjee, S. 23
Mukul, M. 16, 17, 18, 20
multivariate data analysis
Mungpo, West Bengal 17
Muthunayagam, A. E. 1
Namachi, Sikkim 17
nanotubes 1
nanoparticles 1
National Centre for Environment Prediction (NCEP) 3
National Institute of Epidemiology (NIE) 28
Navaneeth, A. N. 25
Netcdf 3
neural network 14
news clips 31
____ R12000 31
Newtonian fluid 26
Nitrate 9
nonlinear analysis
_____ vibration 21
norm of the adjoint solution (NAS) 12
nudging technique 4
numerical computations 21
NUVEL-1A pole 16
Ocean Carbon Cycle Model Intercomparison Project (OCMIP) 5
Ocean colour data 1, 9
Ocean modelling 1, 3, 4
Oldroyd B model 25
orthogonality condition 23
oscillatory convection 25
Parthasarathy, G. 30
partial differential equations (PDEs) 24, 25
_____, parabolic 24
_____, hyperbolic 24
particulate matter 9
Parvez, I. A. 18
Patra, G. K. 33, 28
Paul, J. 16
Pentium III 31
performance evaluation 31
phosphate, labile organic 7, 9
phytoplanktons, small and large 7
piezoelectric materials 21
plate element, field-consistent 22
plate tectonics 30
plateau-uplift 16
Pol2 18
power station cavern 23
Prabhu 2, 33
Prahlad, T. S. 1
Princeton Ocean Biogeochemical Model (POBM) 5, 7
projection theorems 23
pulses 24
quartz grains 19
quasigestrophic model 12
quasi-linearisation 21
quasi-plastic conditions 19, 20
radiance 9
RAID storage 31
Raja, S. 22
Rajasekar, A. S. 1
Ramamurthy, V. S. 1
Rao, C. N. R. 1
Raster Image Sets (RIS) 9
Rayleigh-Bénard convection 1, 25, 26
_____, oscillatory 26
Reality-Minus-Minimizing-Solution (RMMS) 14
regridding 25
remote shelf 31
Rangit Tectonic Window (RTW) 17
rhyloite rock 23
rock masses, jointed 1, 23
_____, stiffness of 23
rough surfaces 1, 30
salinity 10
sandstones, Lower Siwalik 19
_____, Middle Siwalik 19

sandstones, Gondwana 19
satellite, IRS-P4 1, 9
_____, SeaWiFS 1, 9, 10
_____, Topex/Poseidon (T/P) 1, 3, 4
Satyal, G. 16, 17
schistosity 19
schists, Daling 19
Scientific Data Sets (SDS) 9
sea level variations 10
Sea of Japan 6
sea surface height (SSH) 3, 4, 5
sea surface temperature (SST) 10
SEADAS 10
Seenappa 33
sensitivity analysis 28
sericite 19
server, Linux 31
_____, NFS 31
_____, SGI Origin 200 31
_____, SGI Origin 3400 31
SGI 10, 31
Sharada, M. K. 10
shear deformation 19
shear fracturing 19
Shillong 1, 16
Shiobara power cavern 24
shocks 24
silicate 9
SIMLEP 28
Simple Network Management Protocol (SNMP) 28-30
simulation, monsoon 10
_____, OCMIP
_____, abiotic and biotic 5
Singh, R. N. 1
Sita, S. 2
Sitharam, T. G. 24
Siwalik 19
Siyal Pokhari 17
smart panels 1, 21
software 31, 32
_____, Bernese 18
soil aggregrates 24
Somali coast 3
South Kalijhora thrust (SKT) 19, 20
spatial discretization 24
spectradiometer 9
Sridevi Jade 16, 18, 19, 24
SST 11
statistical analysis 23
stochastic time series
straight extinction 19
structural mechanics, computational 1, 22
Swathi, P.S. 9, 33
symbolic computation 32
synform 19
Talagrand, O. 14
Tangent Linear and Adjoint Model Compiler (TAMC) 5
Technical Evaluation Committee (TEC) 31
Thangavelu, R.P. 2, 33
Tibet 16
time series analysis 10
_____, linear stochastic 10
_____, multivariate 10
_____, nonlinear 10
time-independent forcing perturbation (TIF) 14
Tista River valley 19
transgranular fracturing 28
transmission rate 28
undulose extinction 19
uptime 31
utilisation 31
Vaishali, Vinay 1
Vanitha, R. 30
variable resolution (VR) 1, 10
variational calculus 22
Vdatas 9
velocities, meridional and zonal 10
Vgroups 9
viscoelastic fluids 1, 25, 26
viscoelasticity 25, 26
W-cycle 25
winds, 6-hourly 3, 4
_____, ECMWF 5
_____, Hellerman-Rosenstein 5
workstation, SGI O2 31
_____, SGI Octane2 31
Yajnik, K. S. 10