1. Vibration-rotation relaxation in bimolecular collisions with application to para-Hydrogen
   R Ramaswamy and H Rabitz

2. Electronic momentum distributions and Compton profiles of some molecules with FSGO model
   S Gadre, R Ramaswamy and P T Narasimhan

3. Low-temperature relaxation in gaseous $H_2$ and $D_2$
   R Ramaswamy, H Rabitz and S Green

4. Collisional excitation of interstellar molecules: $H_2$
   S Green, R Ramaswamy and H Rabitz

5. Rotational inelasticity in high-energy $H_2–H_2$ collisions
   R Ramaswamy, H Rabitz and S Green

6. Stochastic theory of intramolecular energy transfer
   R Ramaswamy, S Augustin and H Rabitz

7. Stochastic theory of collisions: Application to vibration–rotation inelasticity in $CO–He$
   R Ramaswamy, S Augustin and H Rabitz
   Journal of Chemical Physics 1979; 70: 2455–2462

8. Quantum number and energy scaling for non-reactive collisions
   A E DePristo, S D Augustin, R Ramaswamy and H Rabitz
   Journal of Chemical Physics 1979; 71: 850–865

9. On the correlation of relaxation data: A Scaling-theoretical analysis
   R Ramaswamy, A E DePristo and H Rabitz
10. *Dynamics of van der Waals molecules: A Scaling-theoretical analysis of $E^\infty_{2}$–He*
   R Ramaswamy and A E DePristo

11. *Semiclassical quantization of multidimensional systems*
   R Ramaswamy, P Siders and R A Marcus
   Journal of Chemical Physics 1980; 73: 5400–5401 (L)

12. *Classical methods in molecular scattering: A continuous quantization procedure*
   R Ramaswamy and A E DePristo
   Chemical Physics Letters 1981; 77: 190–194

13. *Perturbative examination of avoided crossings*
   R Ramaswamy and R A Marcus

14. *The onset of chaotic motions in deterministic systems*
   R Ramaswamy and R A Marcus

15. *Continuous quantization procedure in quasiclassical scattering: Application to atom-Morse oscillator collisions*
   R Ramaswamy

16. *A Simple classical model of infrared multiphoton dissociation*
   R Ramaswamy, P Siders and R A Marcus

17. *Concerning the scaling behaviour in the classical mechanics of non-reactive collisions: An analytic investigation*
   A E DePristo and R Ramaswamy
   Chemical Physics 1981; 57: 129–140

18. *Chaotic motions in vibrating molecules: The generalized Hénon-Heiles model*
   R Ramaswamy
   Chemical Physics 1983; 76: 15–24
19. *Scaling behaviour in collinear atom-diatom collisions: energy transfer from high vibrational states*
   R Ramaswamy and R Bhargava
   Journal of Chemical Physics 1984; 80: 1095–1102

20. *The Scaling principle in classical inelastic collisions*
    R Ramaswamy
    Journal of Chemical Physics 1984; 80: 2462–2463

21. *Classical trajectory analysis: Continuous quantization and scaling in collinear atom-triatom collisions*
    R Ramaswamy
    Chemical Physics 1984; 88: 7–16

22. *Collision dynamics of nonintegrable systems: Validity of classical Scaling*
    R Ramaswamy
    Chemical Physics 1984; 88: 17–25

23. *Quasiperiodic quantum states*
    R Ramaswamy
    Journal of Chemical Physics 1984; 80: 6194–6199

24. *A semiclassical quantization using arbitrary trajectories*
    R Ramaswamy

25. *Classical diffusion on Eden trees*
    D Dhar and R Ramaswamy

26. *Quantal information from classical trajectories: Scaling deconvolution of moments in diatom-diatom collisions*
    R Bhargava and R Ramaswamy
    Chemical Physics 1985; 95: 253–261

27. *Rotational energy transfer in HF-Li collisions*
    K Raghavan, S Upadhyay, N Sathyamurthy and R Ramaswamy
    Journal of Chemical Physics 1985; 83: 1573–1577
28. *Escape times in interacting biased random walks*
M Barma and R Ramaswamy
Journal of Statistical Physics 1986; **43**: 561–570

29. *On backbends on percolation backbones*
M Barma and R Ramaswamy
Journal of Physics A 1986; **19**: L605–L611

30. *Scaling of moments in rotational inelasticity*
S Sinha and R Ramaswamy
Chemical Physics Letters 1987; **135**: 153–158

31. *Transport in random networks in a field: Interacting particles*
R Ramaswamy and M Barma
Journal of Physics A 1987; **20**: 2973–2987

32. *On the dynamics of a controlled metabolic network and cellular behaviour*
S Sinha and R Ramaswamy
BioSystems 1987; **20**: 341–354

33. *Fractal eigenfunctions in a (classically) nonintegrable Hamiltonian system*
R Ramaswamy and S Swaminathan
Europhysics Letters 1987; **4**: 127–131

34. *Complex behaviour of the repressible Operon*
S Sinha and R Ramaswamy
Journal of Theoretical Biology 1988; **132**: 307–318

35. *Semiclassical quantization of resonant systems*
S Sinha and R Ramaswamy
Molecular Physics 1989; **67**: 335–345

36. *Dimension analysis of climatic data*
T R Krishna Mohan, J Subba Rao and R Ramaswamy
Journal of Climate 1989; **2**: 1047–1057
*Dimension analysis of climatic data–Reply*
Journal of Climate 1990; **3**: 1506–1507
37. Limits of weak damping of a quantum harmonic oscillator
A O Caldeira, H A Cerdeira and R Ramaswamy

38. Spectral rigidity in atomic Uranium
S Sinha and R Ramaswamy

39. An exactly solved model of self-organized critical phenomena
D Dhar and R Ramaswamy

40. Adaptive control in nonlinear dynamics
S Sinha, R Ramaswamy and J Subba Rao
Physica D 1990; 43: 118–128

41. Level spacings for harmonic oscillator systems
A Pandey and R Ramaswamy
Physical Review A 1991; 43: 4237–4243

42. Long time fluctuations of liquid water: 1/f spectrum of energy fluctuations in hydrogen-bond network rearrangement dynamics
M Sasai, I Ohmine and R Ramaswamy

43. Scaling behaviour in disordered sandpile automata
B Tadić, U Nowak, K Usadel, R Ramaswamy and S Padlewski
Physical Review A 1992; 45: 8536–8543

44. Decoupling surface analysis of classical irregular scattering and classification of its icicle structure
K Someda, R Ramaswamy and H Nakamura
Journal of Chemical Physics 1993; 98: 1156–1169

45. Symmetry-breaking in quantum chaotic systems
A Pandey, R Ramaswamy and P Shukla
Pramana Journal of Physics 1993; 41: L75–81
46. **Signatures of chaos in quantum billiards: Microwave experiments**  
A Kudrolli, S Sridhar, A Pandey and R **RAMASWAMY**  
Physical Review E 1994; **49**: R11–14

47. **Complex dynamics of atomic clusters**  
S Nayak and R **RAMASWAMY**  
Proceedings of the Indian Academy of Sciences (Chemical Sciences) 1994; **106**: 521

48. **Field–induced transport in random media**  
M Barma and R **RAMASWAMY**  

49. **Melting of (Ar–Xe)_{13} clusters: Surface-core effects**  
S K Nayak and R **RAMASWAMY**  
Journal of Physical Chemistry 1994; **98**: 9260–9264

50. **Coarsening in a driven diffusive system with two species**  
J Kertész and R **RAMASWAMY**  
Europhysics Letters 1994; **28**: 617–622

51. **The maximal Lyapunov exponent in small atomic clusters**  
S K Nayak, R **RAMASWAMY** and C Chakravarty  
Physical Review E 1995; **51**: 3376–3380

52. **$1/f$ Spectra in finite atomic clusters**  
S K Nayak, R **RAMASWAMY** and C Chakravarty  
Physical Review Letters 1995; **74**: 4181–4184

53. **Locally coupled maps on trees**  
P M Gade, H Cerdeira and R **RAMASWAMY**  
Physical Review E 1995; **52**: 2478–2485

54. **Overcoming the zero-point dilemma in quasiclassical trajectories— $(\text{He}, \text{H}_2^+)$ as a test case**  
S Kumar, N Sathyamurthy and R **RAMASWAMY**  
Journal of Chemical Physics 1995; **103**: 6021–6028
55. *Nosé-Hoover dynamics of a nonintegrable Hamiltonian*
S Tiwari and R Ramaswamy
Journal of Molecular Structure: THEOCHEM 1996; **361**: 111-116

56. *Adaptive control in a model of resource management*
S Tiwari, R Ramaswamy and J Subba Rao
Ecological Modelling 1996; **84**: 53-62

57. *Pairwise balance and invariant measures for generalised exclusion processes*
G Schütz, R Ramaswamy and M Barma
Journal of Physics A 1996; **29**: 836–843

58. *Quantum chaos in collinear (He,H₂⁺) collisions*
S Mahapatra, R Ramaswamy and N Sathyamurthy
Journal of Chemical Physics 1996; **104**: 3989–95

59. *Maximal Lyapunov exponent at crises*
V Mehra and R Ramaswamy
Physical Review E 1996; **53**: 3420–24

60. *Defects in self–organized criticality: A directed coupled map lattice sandpile*
B Tadić and R Ramaswamy
Physical Review E 1996; **54**: 3157–64

61. *Solid ⇔ liquid transition in model (HF)ₙ clusters*
S Nayak and R Ramaswamy
Molecular Physics 1996; **89**: 809

62. *Backbones of traffic jams*
H S Gupta and R Ramaswamy
Journal of Physics A 1996; **29**: L547–53

63. *Instantaneous normal mode spectra of quantum clusters*
C Chakravarty and R Ramaswamy
Journal of Chemical Physics 1997; **106**: 5564–70

64. *Prediction of probable genes by Fourier analysis of genomic sequences*
S Tiwari, S Ramachandran, S Bhattacharya, A Bhattacharya and R
65. Curvature fluctuations and the Lyapunov exponent at melting
   V Mehra and R Ramaswamy
   Physical Review E 1997; 56: 2508–17

66. Intermittency route to strange nonchaotic attractors
   A Prasad, V Mehra and R Ramaswamy

67. Synchronization of strange nonchaotic attractors
   R Ramaswamy
   Physical Review E 1997; 56: 7294–96

68. Strange nonchaotic attractors in the quasiperiodically forced logistic map
   A Prasad, V Mehra and R Ramaswamy
   Physical Review E 1998; 57: 1576–84

69. Targeting chaos through adaptive control
   R Ramaswamy, S Sinha and N Gupte

70. Gapless coexisting phases in heterogenous atomic clusters: \((Ar-Xe)_{13}\)
    V Mehra, A Prasad and R Ramaswamy

71. Prediction of genes in bacterial and plastid genomes using GeneScan
    S Ramachandran and R Ramaswamy
    Computers and Chemistry 1999; 23: 165–74

72. Characteristic distributions of finite–time Lyapunov exponents
    A Prasad and R Ramaswamy
    Physical Review E 1999; 60: 2761–9

73. Collision and symmetry–breaking in the transition to strange nonchaotic attractors
    A Prasad, R Ramaswamy, I I Satija and N Shah
    Physical Review Letters 1999; 83: 4530–33
74. *Dynamics of a shallow fluidized bed*
   L S Tsimring, R RAMASWAMY, and P Sherman
   Physical Review E 1999; 60: 7126–30

75. *Identification of parasite genes by computational methods*
   A Bhattacharya, S Bhattacharya, A Joshi, S Ramachandran and R RAMASWAMY
   Parasitology Today 2000; 16: 127–31

76. *Intermittency transitions to strange nonchaotic attractors in a quasiperiodically driven Duffing oscillator*
   A Venkatesan, M Lakshmanan, A Prasad and R RAMASWAMY

77. *Melting of the glassy mixed cluster, Ar9Xe10*
   J S Hunjan and R RAMASWAMY

78. *Bifurcations and transitions in the quasiperiodically driven logistic map*
   S S Negi, A Prasad, and R RAMASWAMY
   Physica D 2000; 145: 1–12

79. *A plethora of strange nonchaotic attractors*
   S S Negi and R RAMASWAMY
   Pramana Journal of Physics 2001; 56: 47–56

80. *Critical States and Fractal Attractors in Fractal Tongues: Localization in the Harper potential*
   S S Negi and R RAMASWAMY
   Physical Review E (Rapid Communication) 2001; 64: 045204(R)

81. *Global Optimization by Adiabatic Switching*
   J S Hunjan and R RAMASWAMY
   International Journal of Molecular Science 2002; 3: 30-37

82. *Information–entropic analysis of chaotic time series: determination of time-delays and dynamical coupling*
   R K Azad, J Subba Rao and R RAMASWAMY
   Chaos, Solitons and Fractals 2002; 14: 633–41
83. *Ab–initio gene prediction: Prokaryote Genome annotation with GLIMMER and GeneScan*
   G Aggarwal and R Ramaswamy
   Journal of Biosciences (Supplement 1) 2002; 27: 7–14

84. *Phase Ordering at Crises*
   M Shrimali and R Ramaswamy
   Physics Letters A 2002; 295: 273

85. *Segmentation of Genomic DNA through entropic divergence: Power–laws and scaling*
   R K Azad, P Bernaola-Galván, R Ramaswamy, and J Subba Rao
   Physical Review E 2002; 65: 051909
   Virtual Journal of Biological Physics Research 3, May 15, 2002

86. *Simplifying the mosaic description of DNA sequences*
   R K Azad, J Subba Rao, W Li, and R Ramaswamy
   Virtual Journal of Biological Physics Research 3, October 1, 2002

87. *Global Optimization on an Evolving Landscape*
   J S Hunjan, S Sarkar, and R Ramaswamy

88. *Symmetry–breaking in local Lyapunov exponents*
   R Ramaswamy

89. *Signatures of multiple timescale behaviour in the power spectra of water*
   A Mudi, R Ramaswamy, and C Chakravarty
   Chemical Physics Letters 2003; 376: 683–89

90. *Thermodynamics of Critical Strange Nonchaotic Attractors*
   S Datta, A Sharma, and R Ramaswamy
   Physical Review E 2003; 68: 036104

91. *Strange nonchaotic attractors in driven excitable systems*
   A Prasad, B Biswal, and R Ramaswamy
   Physical Review E 2003; 68: 037201
92. Non-gaussian fluctuations of local Lyapunov exponents at intermittency  
S Datta and R Ramaswamy  
Journal of Statistical Physics 2003; **113**: 283–95  

93. Symbol sequence analysis of climatic time signals  
R Azad, J Subba Rao, and R Ramaswamy  
Nonlinear Analysis: Real World Applications 2004; **5**: 487-500  

94. Approach to equilibrium in adiabatically evolving potentials  
H S Samanta, J K Bhattacharjee, and R Ramaswamy  
Physical Review E 2004; **69**: 056114  

95. Spectral Repeat Finder (SRF): Identification of repetitive sequences using Fourier transformation  
D Sharma, B Issac, G P S Raghava, and R Ramaswamy  
Bioinformatics 2004; **20**: 1405–12  

96. On the dynamics of the critical Harper map  
S Datta, T Jäger, G Keller, and R Ramaswamy  
Nonlinearity 2004; **17**: 2315–2323  

97. The role of heterogeneity on the spatiotemporal dynamics of host–parasite metapopulation  
B K Singh, J Subba Rao, R Ramaswamy, and S Sinha  
Ecological Modelling 2004; **180**: 435–43  

98. Fractalization route to strange nonchaotic dynamics  
S Datta, R Ramaswamy, and A Prasad  
Physical Review E 2004; **70**: 046203-1–9  

A Ghosh and R Ramaswamy  
Physical Review E 2005; **71**: 016224-1–6  

100. Spectral Signatures of the Diffusional Anomaly in Water  
A Mudi, C Chakravarty, and R Ramaswamy  
Journal of Chemical Physics 2005; **122**: 104507-1–8  
Erratum, Journal of Chemical Physics 2006; **124**: 069902
101. *The phase–modulated logistic map*
   A Nandi, D Datta, J K Bhattacharjee, and R Ramaswamy
   Chaos 2005; **15**: 023107-1–9

102. *The LINEs and SINEs of Entamoeba histolytica: Comparative analysis and genomic distribution*
   A A Bakre, K Rawal, R Ramaswamy, A Bhattacharya, and S Bhattacharya
   Experimental Parasitology 2005; **110**: 207–213

103. *Thermal transport in low dimensional lattices with nearest and next-nearest-neighbour interactions*
   Santhosh G, D Kumar, and R Ramaswamy
   Journal of Statistical Mechanics 2005; **PO7005**: 1–10

104. *Critical localization and strange nonchaotic dynamics: The Fibonacci chain*
   S Datta, S S Negi, R Ramaswamy, and U Feudel

105. *Basin bifurcations in coupled quasiperiodically forced systems*
   M D Shrimali, A Prasad, R Ramaswamy and U Feudel
   Physical Review E 2005; **72**: 036215-1–8

106. *Adaptive targeting of chaotic response in periodically stimulated neural systems*
   K Gupta, H P Singh, B Biswal, and R Ramaswamy
   Chaos 2006; **16**: 023116-1–7

107. *Wavelet Analysis of DNA Walks*
   A D Haimovich, B Byrne, R Ramaswamy and W J Welsh
   Journal of Computational Biology 2006; **13**: 1289–98

108. *Phase-flip bifurcation induced by time-delay*
   A Prasad, J Kurths, S K Dana, and R Ramaswamy
   Physical Review E (Rapid Communication) 2006; **74**: 035204-1–4

109. *Biochemical and computational analysis of insertion hot spots of Entamoeba histolytica non-LTR retrotransposons*
110. Data perturbation independent diagnosis and validation of breast-cancer subtypes using clustering and patterns
G Alexe, G S Dalgin, R Ramaswamy, C Delisi and G Bhanot
Cancer Informatics Online 2006; 2: 243–74

111. Markov Models of Genome Segmentation
Vivek, R K Azad, and R Ramaswamy
Physical Review E 2007; 75: 011915-1–10

112. Recurrence analysis of strange nonchaotic dynamics
E J Ngamga, A Nandi, R Ramaswamy, M C Romano, M Thiel and J Kurths
Physical Review E 2007; 75: 036222-1–8

113. Amplitude death in the absence of time–delays in identical coupled oscillators
R Karnatak, R Ramaswamy, and A Prasad
Physical Review E (Rapid Communication) 2007; 76: 035201-1–4

114. Effective mechanisms for the synchronization of stochastic oscillators
A Nandi, Santhosh G, R K Brojen Singh, and R Ramaswamy
Physical Review E 2007; 76: 041136-1–10
Virtual Journal of Biological Physics Research 8, November 1, 2007

115. Analytical signal analysis of strange nonchaotic attractors
K Gupta, A Prasad, H P Singh, and R Ramaswamy

116. The phase-flip bifurcation in time–delay coupled systems
A Prasad, S K Dana, R Karnatak, J Kurths, B Blasius, and R Ramaswamy
Chaos 2008; 18: 023111-1–8

117. Coexisting attractors in periodically modulated logistic maps
T Umeshkanta Singh, A Nandi and R Ramaswamy
Physical Review E 2008; 77: 066217-1–8
118. *Scenarios for generalized synchronization with chaotic driving*
   T Umeshkanta Singh, A Nandi and R Ramaswamy
   Physical Review E (Rapid Communication) 2008; 78: 025205-1–4

119. *The nature of attractor basins in multistable systems*
   M Shrimali, A Prasad, R Ramaswamy, and U Feudel

120. *The effect of time–delay on anomalous phase synchronization*
   A Prasad, J Kurths and R Ramaswamy

121. *Stochastic dynamics of micro-RNA regulation: application to circadian oscillator models*
   A Nandi, C Vaz, A Bhattacharya, and R Ramaswamy
   BMC Systems Biology 2009; 3: 45

122. *Design strategies for the creation of aperiodic nonchaotic attractors*
   A Nandi, S K Bhowmick, S K Dana and R Ramaswamy
   Chaos 2009; 19: 033116-1–8

123. *Synchronization regimes in conjugate coupled chaotic oscillators*
   R Karnatak, R Ramaswamy, and A Prasad
   Chaos 2009; 19: 033143-1-5

124. *Characterisation of inactivation domains and evolutionary strata in Human X chromosome through Markov segmentation*
   A Kelkar, Vivek Thakur, R Ramaswamy, and D Deobagkar

125. *Transition to weak generalized synchrony in chaotically driven flows*
   T U Singh, H H Jafri, and R Ramaswamy

126. *Quasiperiodic forcing of coupled chaotic systems*
   M Agrawal, A Prasad, and R Ramaswamy
   Physical Review E 2010; 81: 026202-1–6

127. *Amplitude death in nonlinear oscillators with nonlinear coupling*
   A Prasad, M Dhamala, B M Adhikari, and R Ramaswamy
128. The phase-flip transition in coupled electrochemical cells  
J M Cruz, J Escalona, P Parmananda, R Karnatak, A Prasad, and R Ramaswamy  
Physical Review E 2010; 81: 046213-1–4

129. Delay-coupled discrete maps: synchronization, bistability, and quasiperiodicity  
M D Shrimali, R Sharan, A Prasad, and R Ramaswamy  

130. Dynamical effects of integrative time-delay coupling  
G Saxena, A Prasad and R Ramaswamy  
Physical Review E 2010; 82: 017201-1–4

131. Targeted control of amplitude dynamics in coupled nonlinear oscillators  
A Prasad, M Dhamala, B M Adhikari, and R Ramaswamy  
Physical Review E 2010; 82: 027201-1–4

132. The nature of the phase-flip transition in the synchronized approach to amplitude death  
R Karnatak, N Punetha, A Prasad, and R Ramaswamy  
Physical Review E 2010; 82: 046219-1–5

133. Stochastic synchronization of circadian rhythms  
R K B Singh, V Singh, and R Ramaswamy  

134. Order parameter for the transition from strong to weak generalized synchrony from empirical mode decomposition analysis  
K Manchanda and R Ramaswamy  
Physical Review E 2011; 83: 066201-1–6

135. The phase-flip transition in relay-coupled nonlinear oscillators  
A Sharma, M D Shrimali, A Prasad, R Ramaswamy, and U Feudel  
Physical Review E 2011; 84: 016226-1–5
136. Genome wide analysis of mobile genetic element insertion sites
   K Rawal and R Ramaswamy
   Nucleic Acids Research 2011; 39: 6864–6878

137. Excitable nodes on random graphs: Relating dynamics to network structure
   T U Singh, K Manchanda, R Ramaswamy, and A Bose

138. Relaying phase synchrony in chaotic oscillator chains
   M Agrawal, A Prasad, and R Ramaswamy
   Physical Review E 2011; 84: 056205-1–6

139. miRNAs modulate the dynamics of the NF-κB signaling pathway
   C Vaz, A S Mer, A Bhattacharya, and R Ramaswamy

140. Enhancing synchrony in chaotic oscillators by dynamic relaying
   R Banerjee, D Ghosh, E Padmanaban, R Ramaswamy, L M Pecora, and S K Dana

141. Amplitude death and a phase discontinuity with time–delay asymmetry
   N Punetha, R Karnatak, A Prasad, J Kurths, and R Ramaswamy
   Physical Review E 2012; 85: 046204-1–8
   Erratum, Physical Review E 2012; 86: 039902(E)

142. Power spectrum of mass and activity fluctuations in a sandpile
   A C Yadav, R Ramaswamy, and D Dhar
   Physical Review E 2012; 85: 06111-1–8
   arxiv.org/abs/1203.5912

143. Phantom instabilities in adiabatically driven systems: Dynamical sensitivity to computational precision
   H H Jafri, T U Singh and R Ramaswamy
   Chaos 2012; 22: 033103-1–7

144. Distribution of MGEs and their insertion sites in the Macaca mulatta genome
K Rawal, A Priya, A Malik, R Bahl, and R Ramaswamy
Mobile Genetic Elements 2012; 2: 133–141

145. Stochastic synchronization of interacting pathways in a testosterone model
M J Alam, G R Devi, R K Brojen Singh, R Ramaswamy, S C Thakur, B I Sharma
Computational Biology and Chemistry 2012; 40: 10–17

146. Scaling behaviour in probabilistic neuronal cellular automata
K Manchanda, A C Yadav, and R Ramaswamy
Physical Review E 2013; 87: 012704-1–6

147. Weakly dissipative quasiperiodically driven maps
S Bilal and R Ramaswamy
Physical Review E 2013; 87: 034901-1–4

148. Driving-induced bistability in coupled chaotic oscillators
M Agrawal, A Prasad, and R Ramaswamy
Physical Review E 2013; 87: 042909-1–5
Erratum, Physical Review E 2015; 92: 049903(E)

149. Nature of weak generalized synchronization in chaotically driven maps
G Keller, H H Jafri and R Ramaswamy
Physical Review E 2013; 87: 042913-1–7

150. The Generalized Hénon Map: Bifurcations and Dynamics
S Bilal and R Ramaswamy

151. Amplitude death phenomena in delay–coupled Hamiltonian systems
G Saxena, A Prasad, and R Ramaswamy
Physical Review E 2013; 87: 052912-1–5

152. Chimeras with multiple coherent regions
S R Ujjwal and R Ramaswamy
Physical Review E 2013; 88: 032902-1–6
153. *Memoryless nonlinear response: A simple mechanism for the 1/f noise*
A C Yadav, R Ramaswamy, and D Dhar
Europhysics Letters 2013; **103**: 60004–1–5

154. *Local properties of vigilance states: EMD analysis of rat EEG signals*
R Kumar, R Ramaswamy, and B N Mallick

155. *Synchronization and amplitude death in hypernetworks*
S Bilal and R Ramaswamy
Physical Review E 2014; **89**: 062923–1–6

156. *Two–layer modular analysis of gene and protein networks in breast cancer*
A Srivastava, S Kumar, and R Ramaswamy
BMC Systems Biology 2014; **8**: 81

157. *Conjugate coupling in ecosystems: Cross–predation stabilizes food webs*
R Karnatak, R Ramaswamy, and U Feudel
Chaos, Solitons and Fractals 2014; **68**: 48–57

158. *Phase–locked regimes in delay coupled oscillator networks*
N Punetha, A Prasad and R Ramaswamy
Chaos 2014; **24**: 043111–1–8

159. *Delay–induced remote synchronization in bipartite networks of phase oscillators*
N Punetha, S R Ujjwal, F M Atay, and R Ramaswamy
Physical Review E 2015; **91**: 022922–1–7

160. *Bipartite Networks of Oscillators with Distributed Delays: Synchronization Branches and Multistability*
N Punetha, R Ramaswamy, and F M Atay
Physical Review E 2015; **91**: 042906–1–10

161. *Phase oscillators in modular networks: The effect of nonlocal coupling*
S R Ujjwal, N Punetha, and R Ramaswamy
Physical Review E 2016; **93**: 012207–1–10
162. Driving-induced multistability in coupled chaotic oscillators: Symmetries and riddled basins  
S R Ujjwal, N Punetha, R Ramaswamy, M Agrawal and A Prasad  
Chaos 2016; 26: 063111-1–6

163. Synchronization properties of coupled chaotic neurons: The role of ambient noise  
R Kumar, S Bilal, and R Ramaswamy  
Chaos 2016; 26: 063118-1–8

164. Generalised synchrony in coupled stochastic processes with multiplicative noise  
H H Jafri, R K Brojen Singh, and R Ramaswamy  
Physical Review E 2016; 94: 052216-1–8

165. Emergence of chimeras through induced multistability  
S R Ujjwal, N Punetha, A Prasad, and R Ramaswamy  
Physical Review E 2017; 95: 032203-1–8

166. Emergent organization in a model market  
A C Yadav, K Manchanda and R Ramaswamy  
Physica A 2017; 482: 118–126

167. Collective dynamics in heterogeneous networks of neuronal cellular automata  
K Manchanda, A Bose, and R Ramaswamy  
Physica A 2017; 487: 111–124

168. A general mechanism for the 1/f noise  
A C Yadav, R Ramaswamy, and D Dhar  
Physical Review E 2017; 96: 022215-1–6  
E-print: arxiv.org/abs/1610.06346

169. Coupled Lorenz oscillators near the Hopf boundary: Multistability, intermingled basins, and quasi-riddling  
T T Wontchui, J Y Effa, H P E Fouda, S R Ujjwal, and R Ramaswamy  
Physical Review E 2017; 96: 062203-1–11

170. Dynamical effects of breaking rotational symmetry in counter-rotating Stuart–Landau oscillators
N Punetha, V Varshney, S Sahoo, G Saxena, A Prasad, and R Ramaswamy
Physical Review E 2018; 98: 022212-1–8

171. Design Strategies for Generalized Synchronization
S Chishti and R Ramaswamy
REVIEWS & CONFERENCE PROCEEDINGS:

1. *Dynamics of forced coupled oscillators: Classical phenomenology of infrared multiphoton absorption*
   R Ramaswamy and R A Marcus

2. *Sum rules in inelastic gas-surface scattering*
   R Ramaswamy
   Proceedings of the Indian Academy of Sciences (Chemical Sciences) 1985; **96**: 249–252

3. *Dynamics of controlled metabolic and cellular behaviour*
   S Sinha and R Ramaswamy

4. *Chaotic behavior in the eigenstates of molecular systems*
   R Ramaswamy
   Current Science (Bangalore) 1987; **56**: 176–177

5. *Quantization of bound states: Semiclassical methods and aspects of chaos*
   R Ramaswamy

6. *Dissipative quantum maps*
   H Cerdeira and R Ramaswamy

7. *Chaos in chemical dynamics*
   R Ramaswamy
8. *Irregular scattering*  
    R RamaSwamy  

9. *Criticality in driven cellular automata with defects*  
    B Tadić and R RamaSwamy  
    Physica A 1996; **224**: 188-198

10. *Gene identification in silico*  
    S Tiwari, S Bhattacharya, A Bhattacharya and R RamaSwamy  
    Current Science (Bangalore) 1996; **71**: 12–24

11. *Tagged atom spectroscopy in finite rare-gas clusters*  
    R RamaSwamy and S K Nayak  

12. *Long range correlations in small atomic clusters*  
    S K Nayak and R RamaSwamy  
    Surface Review and Letters 1996; **3**: 457–461

13. *The Lyapunov exponent at the KAM transition*  
    V Mehra and R RamaSwamy  
    Proceedings of the National Academy of Sciences (India) 1996; **66A**: 91–96

14. *Resonances and chaos in the collinear collision system (He,H$_2^+$) and its isotopic variants*  
    S Mahapatra, N Sathyamurthy and R RamaSwamy  
    Pramana Journal of Physics (Special issue on Chaos and Nonlinearity in the Physical Sciences) 1997; **48**: 411–424

15. *Dynamical signatures of “Phase transitions”*: Chaos in finite clusters  
    V Mehra, S K Nayak and R RamaSwamy  
    Pramana Journal of Physics (Special issue on Chaos and Nonlinearity in the Physical Sciences) 1997; **48**: 603–615

16. *Lyapunov exponent at the melting transition in small Ni clusters*  
    V Mehra and R RamaSwamy

17. Chaotic dynamics of atomic clusters
   R Ramaswamy

18. Chaos
   K Krishan, Mamu and R Ramaswamy
   1. Introduction to Chaos, Resonance–journal of Science Education 1998; 3: 6–14
   2. Routes to Chaos, Resonance–journal of Science Education 1998; 3: 8–15

19. Weak chaos in small clusters: specific heat relaxation in Ar$_{13}$
   Vishal Mehra and R Ramaswamy
   in Nonlinear Dynamics and Computational Physics, Edited by V B Sheorey (Narosa Publishing House, New Delhi, 1998) pp 62

20. Size matters: The chemistry and physics of small clusters
   C Chakravarty and R Ramaswamy
   Chemistry Education Review 1999; 14: 10–18

21. Enhancement and maintenance of chaos using adaptive anticontrol
   R Ramaswamy, S Sinha and N Gupte

22. Finite–time Lyapunov exponents of strange nonchaotic attractors
   A Prasad and R Ramaswamy

23. Can strange nonchaotic attractors be created through stochastic driving?
   A Prasad and R Ramaswamy
   in Nonlinear Phenomena in Biological and Physical Sciences, Eds. S

24. Lyapunov exponents at phase transitions in finite systems
M D Shrimali, R RAMASWAMY, and N Chatterjee

25. Strange nonchaotic attractors
A Prasad, S S Negi, and R RAMASWAMY

26. Analysis of DNA sequences through segmentation: Exploring the mosaic via statistical measures
R RAMASWAMY and R K Azad
Physica Scripta 2003; T106: 21–25

27. Bifurcations in a nonabelian logistic equation
D Datta, J K Bhattacharjee, A Nandi, and R RAMASWAMY

28. Dynamics of the Harper map: Localized states, Cantor spectra and Strange nonchaotic attractors
S S Negi and R RAMASWAMY

29. Partial and complete synchronization in quasiperiodically forced coupled maps
M D Shrimali and R RAMASWAMY

30. Homotopy method in global optimization: Application to finite atomic clusters
J S Hunjan, G S Matharoo, S Sarkar, and R RAMASWAMY
Appendix: Constrained trajectory method for global optimization
Santhosh G and R Ramaswamy

31. A robust meta-classification strategy for cancer diagnosis from gene expression data
G Alexe, G Bhanot, B Venkataraghavan, R Ramaswamy, J Lepre, A J Levine, and G Stolovitzky

32. Segmentation of genomic DNA sequences
R K Azad, J E Lawrence, Vivek, and R Ramaswamy

33. Aperiodic Nonchaotic Attractors, Strange and otherwise
A Prasad, A Nandi, and R Ramaswamy

34. Recurrences of Strange Attractors
E J Ngamga, A Nandi, R Ramaswamy, M C Romano and J Kurths
Pramana Journal of Physics 2008; 70: 1039–46

35. Synchronization of Coupled Stochastic Oscillators: The effect of topology
A Nandi and R Ramaswamy
Pramana Journal of Physics 2008; 70: 1065–74

36. Strange nonchaotic attractors in driven delay–dynamics
A Prasad, M Agrawal, and R Ramaswamy

37. Synchronization of coupled repressilators via quorum sensing
V Singh, A Mer, R Pandey, A Nandi, and R Ramaswamy
38. *Chaos death and complete synchronization regimes in conjugate coupled Rössler oscillators*
   R Karnatak, R Ramaswamy, and A Prasad
   http://lib.physcon.ru/?item=2024.

39. *Stochastic Synchronization*
   R Ramaswamy, R K B Singh, C S Zhou, and J Kurths

40. *Dynamics of excitable nodes on random graphs*
   K Manchanda, T U Singh, and R Ramaswamy
   Pramana Journal of Physics 2011; **77**: 803–10

41. *The effect of finite response–time in integratively coupled dynamical systems*
   G Saxena, A Prasad, and R Ramaswamy
   Pramana Journal of Physics 2011; **77**: 865–72

42. *Spectral analysis of noncoding RNA*
   V Singh and R Ramaswamy

43. *Amplitude Death: The emergence of stationarity in coupled nonlinear systems*
   G Saxena, A Prasad, and R Ramaswamy
   Physics Reports 2012; **521**: 205–228

44. *Amplitude Death: The cessation of oscillations in coupled nonlinear dynamical systems*
   G Saxena, N Punetha, A Prasad, and R Ramaswamy
   AIP Conference Proceedings 2014; **1582**: 158–171

45. *The energy efficiency of fractal solar grids*
   S Kumar, R Ramaswamy, and S K Nayak
   First International Conference on Sustainable Green Buildings and...
46. *Time-delayed conjugate coupling in dynamical systems*
   A Sharma, M D Shrimali, A Prasad and R Ramaswamy
   European Journal of Physics (Special Topics) 2017; **226**: 1903–10

47. *Chemistry at the Nanoscale: When Every Reaction is a Discrete Event*
   A B R Kumar and R Ramaswamy
   Resonance–journal of Science Education 2018; **23**: 23–40

48. By-product *group benefits of non-kin resource-sharing in vampire bats*
   R Donepudi and R Ramaswamy
   Journal of Physics Conference Series 2018; **1090**: 012002

49. *The collective dynamics of NF-κB in cellular ensembles: Cluster synchrony, Splay states, and Chimeras*
   R Donepudi and R Ramaswamy
   European Journal of Physics (Special Topics) 2018; **227**: 851
OTHER ARTICLES:

1. Regular and chaotic motion in dynamical systems
   R Ramaswamy

2. Aspects of chaos in conservative dynamical systems
   R Ramaswamy
   Current Science (Bangalore) 1984; 53: 619–26

3. Elementary concepts in chaos and turbulence
   R Ramaswamy

4. Chaos made to Order
   R Ramaswamy
   Science Age, July 1985, pp. 11–16.

5. Symmetries and symmetry-breaking in oscillator ensembles
   S R Ujjwal and R Ramaswamy
   Physics News 2017; 47: 11–16

6. Genes, Brains, and Unpredictability: Developments in the sciences and reflections on what it means to be alive
   R Ramaswamy
   Current Science (Bangalore) 2001; 80: 1381–86

7. The natural effectiveness of mathematics in the biological sciences
   R Ramaswamy
   Current Science (Bangalore) 2005; 88: 381–87

8. Women in Mathematics: The Indian experience
   R Ramaswamy
   The Hyderabad Intelligencer (Springer Verlag, 2010) pp. 60–63.
9. Enabling access in a globalized world: Initiatives beyond borders
   R Ramaswamy

10. Integrating Mathematics and History: The scholarship of D D Kosambi
    R Ramaswamy
    Economic & Political Weekly 2012; 47: 58–62

11. Science at the interface: UoH’s quest for innovation and excellence
    R Ramaswamy
    Academic Executive Brief 2012; 2 (2): 16–17

12. Gender Diversity in Physics in India: Interventions so far and recommendations for the future
    P Shastri, R Ramaswamy, S Narasimhan, S Rao, S Ubale, and S Kulkarni
    AIP Conference Proceedings 2013; 1517: 106–107
    http://tinyurl.com/cu94m8a

13. A fine balance: Making it work for women in science
    R Ramaswamy

14. Science, Education, and Research in India
    R Ramaswamy
    Economic & Political Weekly 2013; 48: 20–23

15. My journey (and detours) through chemistry
    R Ramaswamy
    Teacher Plus, May-June 2013 pp. 8–9.
    http://tinyurl.com/gpeodpx

16. Indian Higher Education in the Digital Age
    R Ramaswamy
    Economic & Political Weekly 2014; 49: 27–30
17. *A scholar in his time: Contemporary views of Kosambi the mathematician*
   R Ramaswamy

18. *Plagiarism is not cool*
   R Ramaswamy
   The Nxt Step, The Hindu 2015, pages 18–20

19. *Women Scientists in India*
   R M Godbole and R Ramaswamy

20. *Academic Phantoms*
   R Ramaswamy
   Current Science (Bangalore) 2015; *109*: 1007–08, Editorial.

   P Shastri, A Kurup, L Resmi, R Ramaswamy, S Ubale, S Bagchi, S Rao and S Narasimhan
   AIP Conference Proceedings 2015; *1697*: 060022
   http://tinyurl.com/hfhaqd3

22. *Years of Change: My tenure at the University of Hyderabad*
   R Ramaswamy

23. *Science in the Public Sphere: Dissemination, Discussion, and Dialogue*
   R Ramaswamy
   DOI: 10.29195/DSSS.01.01.0001

24. *Preface to the Special Issue of Pramana*
   R Ramaswamy and K R Sreenivasan
Pramana Journal of Physics (Special issue on Chaos and Nonlinearity in the Physical Sciences) 1997; 48: 3–5

25. *A perspective on nonlinear dynamics*
N Gupte, R RAMASWAMY, and R Roy

N Gupte and R RAMASWAMY
Pramana Journal of Physics 2008; 70: 955–57

27. *Preface to the Proceedings of the Conference PNLD 2010*
N Gupte, R RAMASWAMY, and A Lakshminarayan
Pramana Journal of Physics 2011; 77: 765–68

28. *PNLD 2013: Conference summary and a perspective*
S Sinha, S Sinha, N Gupte, and R RAMASWAMY

29. *PNLD 2016: Foreword*
H A Cerdeira, N Gupte, J Kurths, and R RAMASWAMY
IASSc Conference Series 2017; 1: v–vi

Book Reviews (a partial list):

1. *Iterated Maps on the Interval as Dynamical Systems*
   Indian Journal of Physics 61B, - (1987)

2. *Chaos and Statistical Method*

3. *A World View of Physics*
   Resonance—journal of Science Education 1999; 4: 90

   Current Science (Bangalore) 2000; 79: 1017
5. The Intelligent Genome - On the Origin of the Human Mind by Mutation and Selection
   Current Science (Bangalore) 2002; 83: 512

6. Probability and Its Applications - Probability Models for DNA Sequence Evolution
   Current Science (Bangalore) 2002; 83: 1595

7. The Shattered Self: The end of natural evolution
   Current Science (Bangalore) 2003; 84: 1260

8. The Access Principle. The Case for Open Access to Research and Scholarship
   Current Science (Bangalore) 2010; 98: 105

9. Math Unlimited
   Asia Pacific Mathematics Newsletter 2012; 2: 37

10. Higher Education in the Digital Age
    Current Science (Bangalore) 2014; 106: 443

11. Leading Science and Technology: India Next?
    Science and Culture 2018; 84: 261

12. C V Raman's Laboratory and Discovery of the Raman Effect
    Science and Culture 2018; 84: 427
BOOKS, PROCEEDINGS and EDITED VOLUMES:

1. **Quantum Chaos**
   H Cerdeira, R. RAMASWAMY, G Casati and M C Gutzwiller, Eds.

2. **Nonlinearity and Chaos in the Physical Sciences**, 
   K R Sreenivasan and R. RAMASWAMY, Eds. 
   Special issue of *Pramana—journal of physics*, (Indian Academy of Sciences, Bangalore, 1997).

3. **Lilavati’s Daughters: The women scientists of India** 
   R Godbole and R. RAMASWAMY, Eds.
   (Indian Academy of Sciences, Bangalore, November 2008).
   Malayalam translation by K Rama, *Lilavathiyute Penmakkal: Indiayile Vanithaa Saasthra Rajnar* 
   (Kerala Sasthra Sahitya Parishath, 2013).

   R. RAMASWAMY, R Godbole, and M Dubey, Eds.
   (Zubaan Books, New Delhi and Indian Academy of Sciences, Bangalore, 2011).

5. **Adventures into the Unknown: Essays by D. D. Kosambi**

   ISBN: 9788132236740 (Print), 9788132236764 (Online)

7. **TRiPS Series** (Hindustan Book Agency, New Delhi):
   (a) *Field Theories and Condensed Matter Physics*, Ed. Sumathi Rao (2001),
   (b) *Numerical Methods for Scientists and Engineers* by H Antia (2002),
   (c) *Lectures in Quantum Mechanics* by Ashok Das (2003); Second edition (2011),

33
(d) Lectures in E M Theory by Ashok Das (2004),
(f) Linear Algebra and Group Theory for Physicists by K Srinivasa Rao (2006),
(g) Nonlinear dynamics near and far from equilibrium by Jayanta K Bhattacharjee and S Bhattacharyya (2007),
(h) Spacetime, Geometry and Gravitation by Pankaj Sharan (2009),
(i) Lectures on Advanced Mathematical Methods for Physicists by Sunil Mukhi and N Mukunda (2010),
(j) Computational Statistical Physics, Eds. Sitangshu B Santra and Purusattam Ray (2011),
(m) Fragility of glass-forming liquids, Eds. A. Lindsay Greer, Kenneth Kelton and Srikanth Sastry (2014),
(n) Lie Groups and Lie Algebras for Physicists by Ashok Das and Susumu Okubo (2014),
(o) Surveys in Theoretical High Energy Physics 2. Lecture Notes from SERC Schools, Eds. R Rangarajan and M Sivakumar (2014),
(p) N=2 Supersymmetric Dynamics for Pedestrians by Yuji Tachikawa (2014),
(r) Intermediate Statistical Physics: A handbook by Jayanta K Bhattacharjee and Dhruba Banerjee (2016),
(s) Topology and Condensed Matter Physics: SERC School Lecture Notes, Ed. S M Bhattacharjee (2017),
(t) Classical Theory of Electricity and Magnetism by Amal Kumar Raychaudhuri (2019, forthcoming) (reprint + revision),
8. **Perspectives in Nonlinear Dynamics: Conference Proceedings**,  
R Ramaswamy, R Roy and N Gupte, Eds.  
Special issue of *Pramana—journal of physics*, (Indian Academy of Sciences, Bangalore, 2005).

N Gupte and R Ramaswamy, Eds.  
Special issue of *Pramana—journal of physics*, (Indian Academy of Sciences, Bangalore, June 2008).

N Gupte, R Ramaswamy, and A Lakshminarayan, Eds.  
Special issue of *Pramana—journal of physics*, (Indian Academy of Sciences, Bangalore, November 2011).

11. **PNLD 2013: Conference Proceedings**,  
S Sinha, S Sinha, N Gupte, and R Ramaswamy, Eds.  

H A Cerdeira, N Gupte, J Kurths, and R Ramaswamy, Eds.  
*Indian Academy of Sciences Conference Series*, (Indian Academy of Sciences, Bangalore, December 2017).
IN PRESS:

1. *Night-thoughts on Academics, Administration, & the University*
   R Ramaswamy
   to be published, 2018.

2. *Critical thinking, scientific temper, and the role of the scientific community*
   R Ramaswamy
   *Talk given at The 2018 EMS-Smriti Conference, Thrissur 13–14 June, 2017.*
PREPRINTS, AND WORK IN PROGRESS:

1. *A Fragmented Feminism: The Life and Letters of Anandibai Joshee* by Meera Kosambi

2. *Atopic Dermatitis*
   A Jangid, R Pandey, and R Ramaswamy
   in preparation.

3. *Modeling long lifespans in eusocial insect populations*
   R Donepudi and R Ramaswamy
   bioRxiv 408211; doi: https://doi.org/10.1101/408211

4. *Genome expansion: the eukaryotic strategy*
   R Donepudi and R Ramaswamy
   under revision.