Chen, Chun-Chung

Email: cjj@phys.sinica.edu.tw
Address:
  Institute of Physics
  Academia Sinica
  128 Sec. 2 Academia Rd. Nangang Dist.
  Taipei, Taiwan 11529
Web: https://ccdw.org/~cjj/

Publications

Journal

1. *Active width at a slanted active boundary in directed percolation*
   Chun-Chung Chen, Hyunggyu Park and Marcel den Nijs, Physical Review E **60**, 2496 (1999)

2. *Interface view of directed sandpile dynamics*
   Chun-Chung Chen and Marcel den Nijs, Physical Review E **65**, 031309 (2002)

3. *Directed avalanche processes with underlying interface dynamics*
   Chun-Chung Chen and Marcel den Nijs, Physical Review E **66**, 011306 (2002)

4. *Cohesion-induced deepening transition of avalanches*
   Chun-Chung Chen, Physical Review E **66**, 061304 (2002)

5. *Ring-chain equilibrium in reversibly associated polymer solutions: Monte Carlo simulations*
   Chun-Chung Chen and Elena E. Dormidontova, Macromolecules **37**, 3905 (2004)

6. *Supramolecular polymer formation by metal-ligand complexation: Monte Carlo simulations and analytical modeling*
   Chun-Chung Chen and Elena E. Dormidontova, Journal of the American Chemical Society **126**, 14972 (2004)

7. *Architectural and structural optimization of the protective polymer layer for enhanced targeting*
   Chun-Chung Chen and Elena E. Dormidontova, Langmuir **21**, 5605 (2005)

8. *Monte Carlo simulations of end-adsorption of head-to-tail reversibly associated polymers*
   Chun-Chung Chen and Elena E. Dormidontova, Macromolecules **39**, 9528 (2006)

9. *Effect of orientational specificity of complexation on the behavior of supramolecular polymers: theory and simulation*
   Matthew C. Hagy, *Chun-Chung Chen* and Elena E. Dormidontova, Macromolecules **40**, 3408 (2007)

10. *Metabolic implications for the mechanism of mitochondrial endosymbiosis and human hereditary disorders*
Benjamin Lovegren de Bivort, *Chun-Chung Chen*, Fabrizio Perretti, Giacomo Negro, Thomas M. Philip and Yaneer Bar-Yam, Journal of Theoretical Biology **248**, 26 (2007)

11. *Reversible association and network formation in 3:1 ligand-metal polymer solutions*
Shihu Wang, *Chun-Chung Chen* and Elena E. Dormidontova, Soft Matter **4**, 2039 (2008)

12. *Mean-field theory of a plastic network of integrate-and-fire neurons*
Chun-Chung Chen and David Jasnow, Physical Review E **81**, 011907 (2010)

13. *Event-driven simulations of a plastic, spiking neural network*
Chun-Chung Chen and David Jasnow, Physical Review E **84**, 031908 (2011)

14. *Reconstruction of network structures from repeating spike patterns in simulated bursting dynamics*
Hao Song, *Chun-Chung Chen*, Jyh-Jang Sun, Pik-Yin Lai and C. K. Chan, Physical Review E **90**, 012703 (2014)

15. *Determination of melting temperature and temperature melting range for DNA with multi-peak differential melting curves*
Dmitri Y. Lando, Alexander S. Fridmana, Chun-Ling Chang, Inessa E. Grigoryan, Elena N. Galyuk, Oleg N. Murashko, *Chun-Chung Chen* and Chin-Kun Hu, Analytical Biochemistry **479**, 28 (2015)

16. *Adaptive synchronization and anticipatory dynamical systems*
Ying-Jen Yang, *Chun-Chung Chen*, Pik-Yin Lai and C. K. Chan, Physical Review E **92**, 030701 (2015)

17. *Propagation and synchronization of reverberatory bursts in developing cultured networks*
Chih-Hsu Huang, Yu-Ting Huang, *Chun-Chung Chen* and C. K. Chan, Journal of Computational Neuroscience **42**, 177 (2017)

18. *Variation approach to error threshold in generic fitness landscape*
Ching-I Huang, Min-Feng Tu, Hsiu-Hau Lin and *Chun-Chung Chen*, Chinese Journal of Physics **55**, 606 (2017)

19. *Second derivative techniques in differential scanning calorimetry of DNA modified with platinum compounds*
Chun-Ling Chang, *Chun-Chung Chen*, Chin-Kun Hu and Dmitri Y. Lando, Thermochimica Acta **654**, 186 (2017)

20. *Characterization of Predictive Behavior of a Retina by Mutual Information*
Kevin Sean Chen, *Chun-Chung Chen* and C. K. Chan, Frontiers in Computational Neuroscience **11**, 66 (2017)

21. *Positive feedback and synchronized bursts in neuronal cultures*
Yu-Ting Huang, Yu-Lin Chang, *Chun-Chung Chen*, Pik-Yin Lai and C. K. Chan, PLoS ONE **12**, e0187276 (2017)

Proceeding

1. *Computer modeling of reversible association in metallo-supramolecular polymers*
   Chun-Chung Chen and Elena E. Dormidontova, Polymer Preprints **45**, 391 (2004)

2. *Computer modeling of reversible adsorption of head-to-tail associating polymers*
   Elena E. Dormidontova and *Chun-Chung Chen*, Polymeric Materials: Science & Engineering **90**, 370 (2004)

3. *RGB algorithm for spatial evolutionary game theory with finite populations*
   Ching-I Huang, Hsiu-Hau Lin and *Chun-Chung Chen*, Evolutionary Computation (CEC), 2015 IEEE Congress on, 1521 (2015)

4. *Active Prediction in Dynamical Systems*
   Chun-Chung Chen, Kevin Sean Chen and C. K. Chan, Neural Information Processing, 632 (2017)

Presentations

Invited

1. *Interface dynamics prospect of avalanche systems*
   University of British Columbia, Vancouver, British Columbia, April 4, 2002

2. *Monte Carlo simulations of reversibly associated polymers*
   Academia Sinica, Taipei, Taiwan, December 27, 2004
   National Central University, Chungli, Taiwan, January 6, 2005
   Center of Mathematical Modeling and Scientific Computing, Hsinchu, Taiwan, December 11, 2009

3. *Theoretical Modeling of Plastic Neural Networks*
   National Center of Theoretical Sciences, Hsinchu, Taiwan, November 13, 2009

4. *Modeling the Dynamics and Growth of Spiking Neural Networks*
   Biophysics & Soft Matter Days 2010, Loutung, Taiwan, January 25, 2010

5. *Theoretical Modeling of Plastic Spiking Networks*
   Center of Mathematical Modeling and Scientific Computing, Hsinchu, Taiwan, March 31, 2010

6. *Modeling of plastic spiking neuron networks*
   Miniworkshop on Nonlinear Biophysics in Excitable System, Academic Sinica, Taipei, Taiwan, April 12, 2010
   National Cheng Kung University, Tainan, Taiwan, April 28, 2010

7. *Structure and Stability of Plastic Neural Networks*
   National Chengchi University, Taipei, Taiwan, September 13, 2010
   National Center of Theoretical Sciences, Hsinchu, Taiwan, September 24, 2010
   Center for Quantum Science and Engineering, Taipei, Taiwan, October 1, 2010

8. *Reverberation of neural network with asynchronous release in synaptic dynamics*
   National Central University, Chungli, Taiwan, Feburary 24, 2011

9. *Emergent Structures of a Plastic, Spiking Neural Network*
   Tunghai University, Taichung, Taiwan, October 31, 2011
   The 2nd Asia-Pacific Regional Workshop for Complex Non-equilibrium Systems, Hong Kong, November 13, 2011
   National Tsing Hua University, Hsinchu, Taiwan, January 3, 2012
   Annual Meeting of the Physical Society of Republic of China, Chiayi, Taiwan, January 18, 2012

10. *Spatial variations on cyclic dominance*
    National Tsing Hua University, Hsinchu, Taiwan, December 6, 2011
    National Chiao Tung University, Hsinchu, Taiwan, May 3, 2012

11. *Spatial rock-paper-scissors game and evolutionary dynamics*
    Institute of Physics Colloquium, Academic Sinica, Taipei, Taiwan, May 22, 2012

Contributed

1. *Interface view of a directed avalanche system*
   with Marcel den Nijs, APS March Meeting 2001, Session S7.006, Seattle, Washington, March 14, 2001

2. *Interface dynamics prospect of avalanche systems*
   Condensed Matter Physics Journal Club, University of Washington, Seattle, Washington, February 6, 2002

3. *Monte Carlo simulations of ring-chain equilibrium in reversibly associated polymer solutions*
   Macromolecular Science and Engineering Graduate Student Seminar, Case Western Reserve University, Cleveland, Ohio, November 14, 2003

4. *Monte Carlo simulations of polymer brushes formed by reversible head-to-tail associating polymers*
   by Elena E. Dormidontova, APS March Meeting 2004, Session V31.010, Montreal, Quebec, March 25, 2004

5. *Computer modeling of reversible association in metallo-supramolecular polymers*
   with Elena E. Dormidontova, The 227th ACS National Meeting, Session POLY 40, Anaheim, California, March 28, 2004

6. *Computer modeling of reversible adsorption of head-to-tail associating polymers*
   by Elena E. Dormidontova, The 227th ACS National Meeting, Session PMSE 226, Anaheim, California, March 30, 2004

7. *Theoretical and computer modeling of supramolecular polymers*
   by Elena E. Dormidontova, 40th IUPAC World Polymer Congress, Symp. 2.4 CL, Paris, France, July 6, 2004

8. *Modeling of chain architecture for targeted drug delivery*
   with Jessica Kingsberg, Macromolecular Science and Engineering Graduate Student Seminar, Case Western Reserve University, Cleveland, Ohio, November 5, 2004

9. *Computer modeling of ring to chain transition in reversibly associated polymers*
   by Matthew Hagy, with Elena E. Dormidontova, ACS Cleveland Section, 2005 Meeting-in-Miniature, Session 5.3, Baldwin-Wallace College, Berea, Ohio, March 23, 2005

10. *Towards improving the targeting efficiency of end-functionalized polymer brushes*
    with Elena E. Dormidontova, APS March Meeting 2005, Session W31.00004, Los Angeles, California, March 24, 2005

11. *Kinetics of chain exchange in diblock copolymer micelles*
    with Elena E. Dormidontova, APS March Meeting 2006, Session G28.00009, Baltimore, Maryland, March 14, 2006

12. *Chain Exchange Kinetics in Diblock Copolymer Micelles: Comparison of Experimental and Simulation Results*
    by Elena E. Dormidontova, with Reidar Lund, Lutz Willner and Dieter Richter, APS March Meeting 2006, Session G28.00010, Baltimore, Maryland, March 14, 2006

13. *Computer simulation of supramolecular assembly by metal-ligand complexation*
    by Shihu Wang, with Elena E. Dormidontova, APS March Meeting 2006, Session K25.00013, Baltimore, Maryland, March 14, 2006

14. *Spike-timing dependent plasticity in integrate-and-fire networks*
    with David Jasnow, APS March Meeting 2008, Session B16.00002, New Orleans, Louisiana, March 10, 2008

15. *Synaptic weight distribution under spike-timing dependent plasticity*
    with David Jasnow, APS March Meeting 2009, Session Q40.00006, Pittsburgh, Pennsylvania, March 18, 2009

Posters

1. *Interface view of a directed avalanche system*
   Chun-Chung Chen and Marcel den Nijs, Boulder School for Condensed Matter and Materials Physics, Boulder, Colorado, July 5–6, 2001

2. *Theoretical modeling of reversibly associated polymers*
   Chun-Chung Chen and Elena E. Dormidontova, Research ShowCASE 2003, Case Western Reserve University, Cleveland, Ohio, April 4, 2003

3. *Optimization of targeting for gene delivery: computer modeling*
   Chun-Chung Chen and Elena E. Dormidontova, 40th IUPAC World Polymer Congress, Symp. 5.3 P5.3-14, Paris, France, July 6, 2004

4. *Monte Carlo study of reversibly associated polymers*
   Chun-Chung Chen and Elena E. Dormidontova, APS March Meeting 2005, Session C1.00176, Los Angeles, California, March 21, 2005; Research ShowCASE 2005, ID 377, Case Western Reserve University, Cleveland, Ohio, April 6-7, 2005

5. *Analytical and computer modeling of ring to chain equilibrium in reversibly associated polymers*

Matthew C. Hagy, *Chun-Chung Chen* and Elena E. Dormidontova, Research ShowCASE 2005, ID 352, Case Western Reserve University, Cleveland, Ohio, April 6-7, 2005

6. *Molecular modeling of reversible supramolecular complexes*
Jessica G. Kingsberg, *Chun-Chung Chen* and Elena E. Dormidontova, Research ShowCASE 2005, ID 354, Case Western Reserve University, Cleveland, Ohio, April 6-7, 2005

7. *Monte Carlo Simulation of Reversibly Associating Networks*
Shihu Wang, *Chun-Chung Chen* and Elena E. Dormidontova, APS March Meeting 2006, Session Q1.00036, Baltimore, Maryland, March 15, 2006; Research ShowCASE 2006, ID 112, Case Western Reserve University, Cleveland, Ohio, April 5-6, 2006