

Curriculum Vitae

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Experience:

Sep 94 – Present Assistant Professor / Associate Professor,
Department of Applied Physics, Hong Kong Polytechnic University
Jan 01 – Apr 01 Visiting Assistant Professor,
Department of Physics, University of Michigan
Jun 93 – Aug 94 Postdoctoral Research Associate,
Applied Physics, Yale University (with Prof. B.B. Mandelbrot)
May 94 – Jun 94 Visiting Scholar,
Dept. of Physics, Hong Kong University of Science and Technology

Education:

Sep 90 – Jun 93 Ph.D. in Physics,
University of Michigan (with Prof. L.M. Sander)
Sep 88 – Aug 90 Graduate study in Physics,
University of Hong Kong (with Dr. C.D. Beling)
Sep 85 – Aug 88 B.Sc. in Physics,
University of Hong Kong

Research Interests:

Self-assembled nano-structures in heteroepitaxy, quantum computation in solid state systems, dewetting of ultrathin polymer films, two-phase flow in porous media, kinetic roughening of thin films, fractal growth phenomena

Publications

1. Fractals in surface growth with power-law noise, C.-H. Lam and L.M. Sander, Journal of Physics A 25, L135 (1992).
2. Surface growth with power-law noise, C.-H. Lam and L.M. Sander, Physical Review Letters 69, 3338 (1992).
3. Surface growth with temporally correlated noise, C.-H. Lam, L.M. Sander and D.E. Wolf, Physical Review A 46, R6128 (Rapid Communication) (1992).
4. Surface growth with temporally correlated noise, C.-H. Lam, L.M. Sander and D.E. Wolf, International Journal of Fractals 1, 1 (1993).
5. Inverse method for interface problems, C.-H. Lam and L.M. Sander, Physical Review Letters 71, 561 (1993).
6. Exact results in surface growth with power-law noise, C.-H. Lam and L.M. Sander, Physical Review E 48, 979 (1993).
7. An exact renormalization-group approach to the generating function of the Vicsek fractal, J.Q. You, C.-H. Lam, F. Nori and L.M. Sander, Physical Review E 48, R4183 (Rapid Communication) (1993).
8. Large scale structure of interfaces: an inverse method, C.-H. Lam and L.M. Sander, International Journal of Fractals 1, 745 (1993).
9. Nonuniversal diffusion limited aggregation and exact fractal dimensions, P. Ossadnik, C.-H. Lam and L.M. Sander, Physical Review E 49, R1788 (Rapid Communication) (1994).
10. Novel Surface Transformations on GaAs (001) During Vacuum Annealing, C. Snyder, J. Sudijono, M. Johnson, C.-H. Lam and B.G. Orr, Physical Review B 50, 18194 (1994).
11. Orientation of particle attachment and local isotropy in diffusion limited aggregation (DLA), C.-H. Lam, H. Kaufman and B.B. Mandelbrot, Journal of Physics A 28, L213 (1994).
12. Deviations from self-similarity in plane DLA and the infinite drift scenario, B.B. Mandelbrot, H. Kaufman, A. Vespignani, I. Yekutieli and C.-H. Lam, Europhysics Letters 29, 599 (1995).
13. A driven diffusion equation approach for optimization of a digital stabilizer, C.-H. Lam, P.K. Mackeown, C.D. Beling, H.L. Au and S. Fung, Nuclear Instrumentation and Methods B. 103, 89 (1995).
14. Finite-size effects in diffusion limited aggregation, C.-H. Lam, Physical Review E 52, 2841 (1995).
15. Local isotropy and geometry of particle flux lines in diffusion-limited aggregation, Chi-Hang Lam, Journal of Physics A: Math. Gen. 29, 1785 (1996).
16. Anomaly in Numerical Integrations of the Kardar-Parisi-Zhang equation, Chi-Hang Lam and F.G. Shin, Physical Review E 57, 6506 (1998).
17. Formation and dynamics of modules in a dual-tasking multi-layer feed-forward neural network, Chi-Hang Lam and F.G. Shin, Physical Review E 58, 3673 (1998).

18. Improved discretization of the Kardar-Parisi-Zhang equation, Chi-Hang Lam and F.G. Shin, Physical Review E **58**, 5592 (1998).
19. Landauer-Buttiker formula for time-dependent transport through resonant-tunneling structures: A nonequilibrium Green's function approach, J. Q. You, C.-H. Lam, and H. Z. Zheng, Physical Review B **62**, 1978 (2000).
20. Pipe network model for scaling of dynamic interfaces in porous media, C.-H. Lam and V.K. Horvath, Physical Review Letters **85**, 1238 (2000).
21. Superconducting charge qubits: the roles of self and mutual inductances, J. Q. You, C.-H. Lam, and H. Z. Zheng, Physical Review B **63**, 180501R (2001).
22. Reply to comment on "Pipe network model for scaling of dynamic interfaces in porous media", C.-H. Lam and V.K. Horvath, Physical Review Letters **86**, 6047 (2001).
23. Competing roughening mechanisms in strained heteroepitaxy: a fast kinetic Monte Carlo study, C.-H. Lam, C.K. Lee, and L.M. Sander, Physical Review Letters **89**, 216102 (2002).
24. Time-dependent space-charge-limited conduction as a possible origin of the polarization offsets observed in compositionally graded ferroelectric films, H.K. Chan, C.H. Lam, and F.G. Shin, Journal of Applied Physics **95**, 2665 (2004).
25. Fluid invasion in Porous Media: Viscous Gradient Percolation, C.H. Lam, Physical Review Letters **92**, 254503 (2004).
26. Mechanisms of imprint effect on ferroelectric thin films, Y. Zhou, H.K. Chan, C.H. Lam, and F.G. Shin, Journal of Applied Physics **98**, 024111 (2005).
27. Effects of polarization and permittivity gradients and other parameters on the anomalous vertical shift behavior of graded ferroelectric thin films, Y. Zhou, H.K. Chan, C.H. Lam, and F.G. Shin, Journal of Applied Physics **98**, 034105 (2005).
28. Exact scalings in competitive growth models, L.A. Braunstein and C.-H. Lam, Physical Review E **72**, 026128 (2005).
29. Island, pit and groove formation in strained heteroepitaxy, M.T. Lung, C.-H. Lam, and L.M. Sander, Physical Review Letters **95**, 086102 (2005).
30. Beyond the heteroepitaxial quantum dot: self-assembling complex nanostructures controlled by strain and growth kinetics, J.L. Gray, R. Hull, C.-H. Lam, P. Sutter, J.L. Means, and J.A. Floro, Physical Review B **72**, 155323 (2005).
31. Self-assembled nanostructures in strained heteroepitaxy, C.-H. Lam, M.T. Lung, and J.Q. You, Physics (Wuli) **35**, 626 (2006) (in Chinese).
32. Dissipative dynamics of coupled quantum dots under quantum measurement, S.H. Ouyang, C.H. Lam, and J.Q. You, Journal of Physics: Condensed Matter **18**, 11551 (2006).
33. Stability of polymer film as a 2D system, Y.J. Wang, C.-H. Lam, X. Zhang, and O.K.C. Tsui, European Physical Journal Special Topics **141**, 181 (2007).