

# HARSH MATHUR

## CURRICULUM VITAE

Nov 9, 2008

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### Education

Ph.D., Yale University (Physics), 1994.

M. Phil, Yale University (Physics), 1989.

B. Tech, Indian Institute of Technology, Kanpur, India (Electrical Engineering), 1987.

### Experience

Associate Professor, Case Western Reserve University,  
July 2001—present;

Warren Rupp Assistant Professor, Case Western Reserve University,  
July 99—June 2001;

Assistant Professor, Case Western Reserve University,  
Sept 95—Jul 2001;

General Member, Institute for Theoretical Physics, University of  
California at Santa Barbara, Feb—May 96;

Postdoctoral Member of the Technical Staff, Bell Laboratories,  
Murray Hill, Nov 93—Aug 95.

### Awards:

1996-2000                      Alfred P. Sloan Foundation Fellow

1992-93                         IBM Predoctoral Fellow

### **Publications (past year):**

- [1] “Revisiting Pollock’s drip paintings”, Katherine Jones-Smith and Harsh Mathur, *Nature* **444**, doi:10.1038/nature05398 (2006).
- [2] “Level spacings in random matrix theory and Coulomb blockade peaks in Quantum Dots”, Damir Herman, T. Tzen Ong, Gonzalo Usaj, Harsh Mathur and Harold U. Baranger, *Phys Rev* **B 76**, 195448 (2007).
- [3] “Quantized non-Abelian monopoles on  $S^3$ ”, Irit Maor, Harsh Mathur and Tanmay Vachaspati, *Phys Rev* **D 76**, 105013 (2007).
- [4] “A Nearly Scale Invariant Spectrum of Gravitational Radiation from Global Phase Transitions”, Katherine Jones-Smith, Lawrence Krauss and Harsh Mathur, *Phys Rev Lett* **100**, 131302 (2008).
- [5] “Drip Paintings and Fractal Analysis”, Katherine Jones-Smith, Harsh Mathur and Lawrence M. Krauss, submitted to *Phys Rev* **E**; available at arXiv:0710.4917
- [6] “Non-exponential tunneling and control of microwave absorption line-shapes via Fano resonance for electrons on Helium”, Solomon Duki and Harsh Mathur, submitted to *Phys Rev Lett*; available at arXiv:0804.2210

### **Relevant Professional Activities (past year):**

- Served on review panel for National Science Foundation, Division of Materials Research, Arlington Va, Jul 12-13, 2007.
- Invited talk on Fractals and Art at American Association of Physics Teachers Annual Meeting, Greensboro, NC, Aug 2007.
- Seminar at Duke University, Physics Department, on Fractals and Jackson Pollock, Aug 2007.
- Invited participant at Study Day for Scholars at the Pollock Matters exhibition at the McMullen Museum of Art, Boston College, Nov 2007.
- Seminar at University of Massachusetts, Amherst, Physics Department, on Fractals and Pollock, Dec 12, 2007.
- Invited participant in upcoming workshop on “Cosmic Microwave Background: Theory and Foregrounds”, at Fermi National Accelerator Laboratory, Illinois, June 23-26, 2008.