

Curriculum Vitae:

Name: Timir Datta
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Mail: Physics & Astronomy
University of South Carolina (USC), Columbia, SC 29208
Citizen: US

Employment History:

Professor, (1991-) Physics & Astronomy department, USC at Columbia.
Associate Professor, (1887-1991) Physics & Astronomy department, USC at Columbia.
Visiting Professor, (Summer 2000) EE department, University of Nebraska at Lincoln.
Visiting Research Professor, (Jan. -Aug. 1990) Physics department, University of Illinois at Urbana - Champaign.
Assistant Professor, (1881-1982) Physics & Astronomy department, Tulane University.
Assistant Professor, (1882-1986) Physics & Astronomy department, USC
Research Associate, (Summers 75-78), Jet Propulsion Lab., CALTECH.

Education:

Post Graduate: Research Associate (1979 –1981) Physics & Astronomy Department, University of North Carolina at Chapel Hill
Graduate: Ph. D. Experimental Condensed Mat. (1979), Tulane University.
M.S. Plasma Theory (1974), Boston College.
Undergraduate: B. S. (1969), Calcutta University.

Professional Expertise: Applied Phys, Macroscopic quantum effects (Quantum Hall & High Tc Superconductivity), Materials, Metrology and Gravitational measurements.

Recent Professional Activities: Team leader (2003-7), American Phys. Soc, March meeting superconductivity category; Chair search committee (2002-3) to recruit Richard Webb from UMD to USC.

Recent Ph.D. Dissertation & MS Thesis Graduates Directed by PI:

Branton Moncriff. MS Thesis, July, 2007 , [Preliminary Data for a New Measurement of Newton's Gravitational Constant G.](#)

Erdogan Ozel. MS Thesis, December 2006, [A Novel low-energy Technique to Determine Planck Mass & Newton's Constant.](#)

Zhihua Cai. MS Thesis, May 2005, [Investigating a New Technique to Determine Newton's Gravitational Constant G.](#)

Michael C. Bleiweiss. Ph.D. Dissertation, Copyright 2001, [Magnetic and Transport properties of Nanostructured Materials and Other Novel Systems.](#)

Selected Bibliography: Timir Datta

1. G. Kalman, T. Datta and K. Gordon: Approximation methods for dense plasmas. Phys. Rev. A, 12, 1125 (1975).
2. J. P. Perdew and T. Datta: Charge and Spin density waves in Jellium. Phys. State. So. (b) 102, 283 (1980).
3. T. Datta and M. Silver: Schottky-barrier profile in a-silicon alloys. Appl. Phys. Lett. 903 (1981).
4. T. Datta and L. Ford: Retarded Van Der Waals potential between conducting plane and a polarizable particle. Phys. Letts. 83A, 314 (1981).
5. T. Datta, A. Barrientos, J. Amirzadeh and J. F. Amirzadeh and J. F. Schetzina: Spin-glass freezing and universal scaling in $Cd_{1-x}Te$. Solid St. Comm., 62, 571 (1987).
6. V. Ramanathan, T. Datta, R. Noufi: Photoconductivity in $CuInSe_2$ Thin Films. Appl. Phys. Lett. 51, 746 (1987).
7. Z. Z. Sheng, A. M. Hermann, A. ElAli, C. Almasan, J. Estrada, T. Datta, R. J. Matson: Superconductivity at 90K in the Tl-Ba-Cu-O System. Phys. Rev. Letts. 6, 937 (1988).
8. T. Datta, H. M. Ledbetter, C. E. Violet, C. Almasan and J. Estrada: Reentrant Softening Perovskitelike Superconductors. Phys. Rev. B 21, 7502 (1988).
9. T. Datta and J. Woollam: Generalized model for the optical absorption Edge in a-Si:H Phys. Rev. B 22, 1953 (1989).
10. N. H. Tea, M. B. Salamon, T. Datta, H. M. Duan and A. M. Hermann: Field-modulated microwave surface resistance in a single crystal TlBaCuO superconductor. Phys. Rev. B45, 5628 (1992).
11. Z. Iqbal, T. Datta, D. Kirven, A. Lungu, J.C. Barry, F.J. Owens, A.G. Rinzler, D. Yang and F. Reidinger. Phys. Rev. B 49, 1 May (1994)
12. T. Datta and John L. Safko: Disordered Gravitation. Localization and Diffusion Limited Dynamics of the Early Universe. Chapter in *Quantum Coherence and Reality*, Ed. J. Anandan and J. L. Safko, World Scientific, Singapore 1994. (Also received "honorable mention" as Gravity Essay in 1994)
13. T. Datta, Ming Yin, Andreea Dimofte, M. Bleiweiss, Anca Lungu, Jafar Amirzadeh and W.E. Sharp: Tidal Effects on Gravity Experiments with a Balance. PRL, **91**,109001 (2003)
14. T. Datta: High Temperature Quantum Hall Condensation: Evidence of Quantum Hall Effect at 40Kelvin. Proc. Vol. 5932 SPIE 593220-1 (2005)
15. M.S. Osofsky, R.J. Soulen, D.U. Gubser & T. Datta, Measurements of AC Loss in Second-Generation HTS Tapes in a DC Magnetic Field, Advance in Cryogenic Engineering (in press, July'07)

Proposals:

1. M.S. Osofsky & T. Datta (co-PI) Bi-B Superconductors DOE; White paper. Submitted, May'07.
2. M.S. Osofsky & T. Datta (co-PI) Bi-B Superconductors AFOSR; White paper. Submitted, July'07.