

## Dr. Sucharita Chatterjee

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### Profile:

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State Aided College Teacher (SACT-I), Department of Physics, Bangabasi College, University of Calcutta.  
PhD in Non-Linear Dynamics, Analysis of Non-Stationary Time Series.

### Education:

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PhD: 2019, Jadavpur University

Thesis Title: Non-Linear Fluctuation Studies in High Energy and Interdisciplinary Physics.

MSc.: Physics, Calcutta University.

BSc.: Physics, Calcutta University.

### Research Areas:

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Analysis of Non-stationary time series, studying fractal, multifractal nature of time series, Multifractal analysis of the fluctuation pattern of the particles emitted in high energy interaction.

### Important Publications:

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1. **Multifractal detrended fluctuation analysis of human gait diseases.** Srimonti Dutta, Dipak Ghosh and Sucharita Chatterjee. *Frontiers in Physiology* **4** 274 (2013)..
2. **Multifractal detrended fluctuation analysis of pseudorapidity and azimuthal distribution of pions emitted in high energy nuclear collisions.** Srimonti Dutta, Dipak Ghosh and Sucharita Chatterjee. *International Journal of Modern Physics A* **29** 18 1450084 (2014).
3. **Multifractal detrended Cross Correlation Analysis of Foreign exchange and SENSEX fluctuation in Indian Perspective.** Srimonti Dutta, Dipak Ghosh and Sucharita Chatterjee. *Physica A* **463** 188-201 (2016).
4. **A Multifractal Analysis of Time Series of Atmospheric CO<sub>2</sub> Concentration.** Srimonti Dutta, Dipak Ghosh and Sucharita Chatterjee. *International Journal of Global Warming* **14** 4 403-416 (2018).
5. **Multifractal Detrended Cross Correlation Analysis of Neuro-degenerative Diseases -- an In depth study.** Srimonti Dutta, Dipak Ghosh and Sucharita Chatterjee. *Physica A* **491** 188-198 (2018).
6. **Multifractal detrended cross correlation analysis of atmospheric CO<sub>2</sub> concentration and land-surface temperature anomalies.** Sucharita Chatterjee, Dipak Ghosh and Srimonti Dutta. *International Journal of Global Warming* **16** 2 209-228 (2018).

7. **Projectile mass and energy dependence of Multifractal Detrended Cross Correlation Analysis of Pseudorapidity space and Azimuthal space in high energy nuclear collisions.** International Journal of Modern Physics A(Accepted) (2019) (To be published in International Journal of Modern Physics E).  
Sucharita Chatterjee, Dipak Ghosh and Srimonti Dutta.