

## First Announcement

# 19th International Conference on Noise and Fluctuations

September 9-14, 2007  
Tokyo, Japan

<http://icnf.meisei-u.ac.jp/>

Organized by  
ICNF 2007 Organizing Committee

Sponsored by  
Japanese Association for Science,  
Art and Technology of Fluctuations  
&  
Aihara Complexity Modeling Project, ERATO, JST  
&  
GESC, Meisei University  
&  
EDS, IEEE

## Introduction

The International Conference on Noise and Fluctuations (ICNF) is a biennial event. Previous conferences in this series were organized in St. Louis (1993), Palanga (1995), Leuven (1997), Hong Kong (1999), Gainesville (2001), Prague (2003), and Salamanca (2005). The aim of the conference is to bring together specialists in fluctuation phenomena from different fields in science and engineering to address both fundamental and applied issues.

## Date and Location

ICNF 2007 will take place on September 9-14, 2007, in Tokyo, Japan.

Tokyo, the capital of Japan, is one of the biggest cities in the world with a population of 12.3 million, and is the largest of the forty-seven prefectures of Japan. Its long history of prosperity started with the establishment of the shogunate by Tokugawa Ieyasu in 1603. At that time, Tokyo was called Edo. By the 18th century, it had grown into a huge city with over a million people. It is now Japan's center for political, economic and cultural activities, as well as the focal point for the dissemination of information.

Tokyo attracts tourists from all over the country, as well as from abroad, as it provides many points of interest for the tourist, well-developed traffic networks, and interconnected facilities for business enterprises. The Metropolitan Government Office which runs the city, Tokyo Station constructed in 1914 as the largest brick building in Japan, and the Odaiba Marine Park commanding a wide ocean view are just a few examples of the sightseeing spots of this charming city full of history and tradition, that is continually generating new points of interest. Cultural facilities such as museums and art galleries are also abundant, making Tokyo, undoubtedly, one of the most advanced cities of the world.

## Conference Site

The Conference will be held at the National Institution for Youth Education (NYC), which is in central Tokyo and within a short distance from one of the biggest downtown areas, Shinjuku, with its skyscrapers and bright lights. It has a spacious and quiet campus surrounded by beautiful park areas. Rooms of the on-campus residences will be available to participants with a reasonable rate, and the conference site can also be reached easily from many modern hotels in the Shinjuku area. For further details about the conference site, see:



<http://nyc.niye.go.jp/e/>

## Scope

ICNF2007 will address a broad variety of topics covering fundamental aspects of noise and fluctuations, as well as applications in various fields. Those related to biological, as well as interdisciplinary aspects of noise and fluctuation research will also be considered. The scientific program will include plenary and invited lectures, oral contributions and poster presentations. The main topics of interest for the conference are:

Mt. Fuji from Shinjuku Area

1. Theory of noise, fluctuations, and stochastic processes: classical, semi-classical, and quantum theory; chaos, random walk, stochastic resonance.
2. Noise and fluctuations in materials: crystalline and amorphous solids, semiconductors, surface layers, conducting films, nanomaterials, organic and magnetic materials and superconductors.
3. Noise and fluctuations in electronic devices: fundamental aspects, impact of technology, and the relation with other performance parameters.
4. Noise and fluctuations in optical, optoelectronic and photonic devices and systems.
5. Noise and fluctuations in mesoscopic conductors, devices and nanostructures; quantum and molecular electronics.
6. Noise in circuits and systems: linear and nonlinear analog circuits, digital circuits; noise in communications, phase noise in oscillators and related circuits.
7. Multi-scale dynamics: fractals and scaling systems, far-from-equilibrium systems, long-memory processes, and biological complexity.
8. Noise and fluctuations in biophysical systems: single molecule dynamics, biological motor, ion channels, and membranes.
9. Neural dynamics: neurons, neural networks, synchronization, motor control and learning.
10. Noise and fluctuations in genetic systems: DNA structure, gene regulatory circuit, and systems biology.
11. Noise and fluctuations in social systems: econophysics, network systems, agent models.
12. Other topics relevant to noise and fluctuation phenomena.

## Conference Proceedings

The Conference Proceedings will be available at the beginning of the conference.

## Important Dates

Second Announcement & Call for Papers	November 2006
Abstract submission deadline	January 2007
Abstract acceptance notification	March 2007
Full paper submission deadline	June 2007

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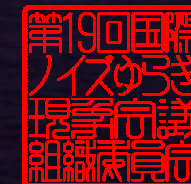
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Mt. Fuji from Tokyo Bay

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