

# Dynamic Days Asia Pacific 7 (DDAP7)

The 7th International Conference on Nonlinear Science  
and the 11th Taiwan International Symposium on Statistical Physics  
Taipei-Taiwan, Aug 5 (Sun) – Aug 9 (Thu), 2012

<http://www.phys.sinica.edu.tw/~statphys/activities/conference/2012/>

## Second Announcement

### General Information:

Dynamic Days Asia Pacific (DDAP) is a regular series of international conferences rotating among Asia-Pacific countries every two years in recent years. Its purpose is to bring together researchers world-wide to discuss the most recent developments in nonlinear science. It also serves as a forum to promote regional as well as international scientific exchange and collaboration. The conference covers a variety of topics in nonlinear physics, biological physics, nonequilibrium physics, complex networks, econophysics, and quantum/classical chaos, etc. DDAP1 started in 1999 in Hong Kong, then continued in Hangzhou (DDAP2, 2002), Singapore (DDAP3, 2004), Pohang (DDAP4, 2006), Nara (DDAP5, 2008) and Sydney (DDAP6, 2010). **DDAP7 will take place at Academia Sinica in Taipei, Taiwan on 6-9 August 2012.** Plans for the 8th to the 9th DDAP are scheduled for India (2014) and Hong Kong (2016).

### Information for some former conferences:

DDAP6: University of New South Wales, Sydney, Australia, 12-14 July 2010

<http://conferences.science.unsw.edu.au/DDAP6/DDAP6.html>

DDAP5: Nara Prefectural New Public Hall, Nara, Japan, 9-12 September 2008

<http://minnie.disney.phys.nara-wu.ac.jp/~toda/ddap5/>

DDAP4: Pohang University of Science and Technology, Pohang, Korea, 12-14 July 2006

<http://www.apctp.org/topical/ddap4/>

DDAP3: National University of Singapore, Singapore, 30 June-2 July 2004

[http://www.cse.nus.edu.sg/com\\_science/story/body.html](http://www.cse.nus.edu.sg/com_science/story/body.html)

DDAP2: Zhejiang University, HangZhou, China, 8-12 August 2002

<http://physics.zju.edu.cn/note/dispArticle.Asp?ID=132>

DDAP1: Hong Kong Baptist University, Hong Kong, 13-16 July 1999

<http://www.hkbu.edu.hk/~ddap/>

Information about the series of *Taiwan International Symposium on Statistical Physics* can be found at <http://proj1.sinica.edu.tw/~statphys/activities/conference.html>

### Topics of the conference:

Chaos, Pattern formation, Econophysics, Complex networks, Dynamics self-organization, Biophysics, Protein folding and aggregation, Biomathematics, Nonlinear optics, Heat transport, Energy and Engineering, ... etc.

## Organization Committee (OC)

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**Host Institute:**

Institute of Physics, Academia Sinica

**Sponsors:**

APCTP (Pohang, South Korea)

Physical Society of the Republic of China (Taipei, Taiwan)

National Science Council (Taipei, Taiwan)

National Center for Theoretical Sciences (Taipei, Taiwan)

Ministry of Education (Taipei, Taiwan)

**Registration Fee:**

Regular: TWD\$6000 (including banquet and tour)

Regular for student: TWD\$3000 (including banquet and tour)

\*This conference has been supported by the Physical Society of the Republic of China (PSROC, Taipei, Taiwan). For *memberships of the PSROC*, the registration fees are partially reduced: TWD\$2000 (general) and TWD\$1000 (student), but banquet and tour are not included. Those who want to join banquet and tour will be asked additional TWD\$500 (banquet) and TWD\$500 (tour).

**Program:**

	Aug 5 (Sun)	Aug 6 (Mon)			Aug 7 (Tue)		Aug 8 (Wed)			Aug 9 (Thu)	
9:00-9:40	/	<i>Opening</i>			<b>P4</b>		<b>IA4</b>	<b>IB4</b>	<b>IC4</b>	<b>P8</b>	
9:40-10:20		<b>P1</b>			<b>P5</b>		+	+	+	<b>P9</b>	
10:20-10:50		<i>Tea Break</i>									
10:50-11:20		<b>P2</b>			<b>P6</b>		<b>IA5</b>	<b>IB5</b>	<b>IC5</b>	<b>P10</b>	
11:20-12:00		<b>P3</b>			<b>P7</b>		+	+	+	<b>P11</b>	
	<i>Lunch</i>										
1:30-3:00	<i>Registration</i>	<b>IA1</b>	<b>IB1</b>	<b>IC1</b>	<b>Poster Session</b>			<b>Tour</b>			<b>P12</b>
		+	+	+							OA1
3:00-3:30		<i>Tea Break</i>									<b>P14</b>
3:30-5:30		<b>IA2</b>	<b>IB2</b>	<b>IC2</b>	<b>IA3</b>	<b>IB3</b>	<b>IC3</b>	<b>P15</b>			
		+	+	+	+	+	+	<b>P16</b>			
		OA2	OB2	OC2	OA3	OB3	OC3				

P: 16 plenary lectures, 40 mins each

IA/IB/IC: 3 parallel session invited talks, 21+ invited talks, 30 mins each

OA/OB/OC: contributed talks in 3 parallel sessions

(Some contributed papers will be prompted to be invited talks)

## Plenary Speakers (16) --- all confirmed

Name	Affiliation / E-mail / Lecture title (tentative)
<b>Michelle Girvan</b>	Department of Physics, University of Maryland, <b>USA</b> E-mail: girvan@umd.edu Title: <i>Modeling the Dynamics of Gene Networks</i>
<b>Bruce Ian Henry</b>	Department of Applied Mathematics, University of New South Wales, <b>Australia</b> E-mail: b.henry@unsw.edu.au Title: <i>Continuous Time Random Walks With Trapping, Forcing and Reactions</i>
<b>Bambi Hu</b>	Department of Physics, University of Houston, <b>USA</b> E-mail: hu@uh.edu Title: <i>Asymmetric Heat Conduction and Negative Differential Thermal Resistance in Nonlinear Systems</i>
<b>Gang Hu</b>	Department of Physics, Beijing Normal University, <b>China</b> E-mail: ganghu@bnu.edu.cn Title: <i>Formation and Dynamics of Oscillatory Patterns in Complex Networks</i>
<b>Lin I</b>	Department of Physics, National Central University, <b>Taiwan</b> E-mail: lini@phy.ncu.edu.tw Title: <i>How particles move in breaking waves: from acoustic waves to water surface waves</i>
<b>Kunihiko Kaneko</b>	Department of Basic Science, the University of Tokyo, <b>Japan</b> E-mail: kaneko@complex.c.u-tokyo.ac.jp Title: TBA
<b>Seunghwan Kim</b>	Asia Pacific Center for Theoretical Physics, Pohang, <b>Korea</b> E-mail: swan@postech.ac.kr Title: TBA
<b>Jurgen Kurths</b>	Institute for Physics, University of Potsdam, <b>Germany</b> E-mail: jkurths@agnld.uni-potsdam.de Title: <i>Network of Networks and the Climate System</i>
<b>Ying-Cheng Lai</b>	School of Electrical, Computer and Energy Engineering, Arizona State University, <b>USA</b> E-mail: Ying-Cheng.Lai@asu.edu Title: <i>Transient Chaos</i>
<b>Baowen Li</b>	Department of Physics, National University of Singapore, <b>Singapore</b> E-mail: phylibw@nus.edu.sg Title: <i>Phononics: Manipulating Heat Flow through Nonlinear Dynamics and Electronic Analogues</i>
<b>Maria Cristina Marchetti</b>	Department of Physics, Syracuse University, <b>USA</b> E-mail: mcm@physics.syr.edu Title: <i>Collective Dynamics of Active Matter: from "Living Liquid Crystals" to Migrating Cell Layers</i>
<b>Zoltán Néda</b>	Department of Theoretical and Computational Physics, Babes-Bolyai University, <b>Romania</b> E-mail: zneda@phys.ubbcluj.ro Title: <i>Synchronization in a New Perspective</i>
<b>Hong Qian</b>	Department of Applied Mathematics, University of Washington, <b>USA</b> E-mail: qian@amath.washington.edu Title: <i>Stochastic Nonlinear Dynamics: Phase Transition, Nonequilibrium Thermodynamics, and Analytical Mechanics</i>
<b>Ram Ramaswamy</b>	School of Physical Sciences, Jawaharlal Nehru University, New Delhi, <b>India</b> E-mail: r.ramaswamy@mail.jnu.ac.in Title: <i>Amplitude Death: The Emergence of Stationarity in Coupled Nonlinear Systems</i>
<b>Stefano Ruffo</b>	Dipartimento di Energetica "Sergio Stecco," Università di Firenze, <b>Italy</b> E-mail: stefano.ruffo@unifi.it Title: <i>Dynamics of Systems with Long-Range Interactions</i>
<b>Ping Sheng</b>	Department of Physics, Hong Kong University of Science and Technology, <b>Hong Kong</b> E-mail: sheng@ust.hk Title: <i>The Electro-Osmotic Effect: Interplay between the Interfacial Boundary Conditions and the Maximum Efficiency Bound</i>

## Parallel Session Invited Speakers (20) --- all confirmed

Name	Affiliation / E-mail / Lecture title (tentative)
<b>Ravindra E. Amritkar</b>	Physical Research Laboratory, <b>India</b> E-mail: amritkar@prl.res.in Title: <i>Extreme events on complex networks</i>
<b>Syamal Kumar Dana</b>	Indian Institute of Chemical Biology, Kolkata, <b>India</b> E-mail: skdana@iicb.res.in Title: <i>How to obtain Extreme Multistability in Coupled systems</i>
<b>Tzay-ming Hong</b>	Department of Physics, National Tsing Hua University, <b>Taiwan</b> E-mail: ming@phys.nthu.edu.tw Title: <i>Scaling relation for a compact crumpled thin sheet</i>
<b>Sarika Jalan</b>	Indian Institute of Technology Indore, Indore, <b>India</b> Email: Sarika@iiti.ac.in Title: <i>Quantifying randomness in biological networks: a random matrix theory approach</i>
<b>Hong-Ren Jiang</b>	Institute of Applied Mechanics, National Taiwan University, <b>Taiwan</b> E-mail: hrjiang@iam.ntu.edu.tw Title: <i>Active colloids under external fields</i>
<b>YounJoon Jung</b>	Department of Chemistry, Seoul National University, <b>Korea</b> E-mail: yjjung@snu.ac.kr Title: TBA
<b>Byungnam Kahng</b>	Department of Physics and Astronomy, Seoul National University, <b>Korea</b> E-mail: bkahng@snu.ac.kr Title: <i>Suppression dynamics and explosive percolations</i>
<b>Choy Heng Lai</b>	Department of Physics, National University of Singapore, <b>Singapore</b> E-mail: phylaich@nus.edu.sg Title: <i>Controlling complex networks – energy cost considerations</i>
<b>Chung-Chuan Lo</b>	Department of Life Sciences, National Tsing Hua University, <b>Taiwan</b> E-mail: cclo@life.nthu.edu.tw Title: <i>Efficient horizontal and vertical information processing in neural networks</i>
<b>Alessandro De Moura</b>	Institute of Complex Systems and Mathematical Biology, University of Aberdeen, <b>UK</b> E-mail: a.moura@abdn.ac.uk Title: <i>Collisions and reactions in open chaotic flows</i>
<b>Punit Parmananda</b>	Department of Physics, Indian Institute of Technology Bombay, <b>India</b> E-mail: punit@phy.iitb.ac.in Title: <i>Synchronization of moving oscillators</i>
<b>Madan Rao</b>	Theory Physics Group, Raman Research Institute, Bangalore, <b>India</b> E-mail: madan@rri.res.in Title: TBA
<b>Tatsuo Shibata</b>	Riken Center for Developmental Biology, Kobe, <b>Japan</b> E-mail: tatsuoshibata@cdb.riken.jp Title: <i>Self-organization in signaling system of eukaryotic chemotaxis</i>
<b>Chi-Tin Shih</b>	Department of Physics, Tunghai University, <b>Taiwan</b> E-mail: ctshih@thu.edu.tw Title: <i>Structural Analysis of the Drosophila Brain Network</i>
<b>Olaf Sporns</b>	Department of Psychological and Brain Sciences, Indiana University, <b>USA</b> E-mail: osporns@indiana.edu Title: <i>Network economy: The cost and efficiency of brain organization</i>
<b>Penger Tong</b>	Department of Physics, Hong Kong University of Science and Technology, <b>Hong Kong</b> E-mail: pengert@ust.hk Title: TBA
<b>Bing-Hong Wang</b>	Department of Modern Physics, China University of Science and Technology, <b>China</b> E-mail: bhwang@ustc.edu.cn Title: <i>Transportation dynamics on networks of mobile agents</i>
<b>Hong Zhao</b>	Department of Physics, Xiamen University, <b>China</b> E-mail: zhaoh@xmu.edu.cn Title: <i>The diffusion of the fluctuations in low-dimensional systems</i>
<b>Zhigang Zheng</b>	Department of Physics, Beijing Normal University, <b>China</b> E-mail: zgzheng@bnu.edu.cn Title: <i>Topology and Dynamics of Complex Networks: Topology Identifications</i>
<b>Changsong Zhou</b>	Department of Physics, Hong Kong Baptist University, <b>Hong Kong</b> E-mail: cszhou@hkbu.edu.hk Title: <i>Sustained avalanche dynamics and self-organized criticality in hierarchical neural networks</i>

**Venue:**

The conference will be held at *Humanities and Social Sciences Building*, Academia Sinica.



Academia Sinica



Humanities and Social Sciences Building

**Tour:**

A half-day tour at great Taipei area will be arranged.

**Important dates:**

16 February 2012: open for online registration and paper submission

31 March 2012: submission deadline for oral contributed papers

30 April 2012: notification of acceptance for oral contributed papers and submission deadline for posters

31 May 2012: deadline for registration

**Contact Information:**

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For further information, please visit the conference webpage:

<http://www.phys.sinica.edu.tw/~statphys/activities/conference/2012/>