

*International Conference on
Physics Education and Frontier Physics*

**The 5th Joint Meeting of the Chinese Physicists worldwide
(OCPA5)**

Jointly organized by

OCPA

Institute of Physics, Academia Sinica

GIS International Convention Center

Taipei, Taiwan

June 27-30, 2006

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OCPA5 Program (June 27-30, 2006)

June 27, Tuesday

Auditorium	
8:45-9:45am	Opening ceremony and plenary talk #1 (Chairs: Tu-nan Chang and Maw-kuen Wu)
8:50am	Yuan T. Lee
9:00am	Wilson Ho (UC, Irvine) The Interior of Single Molecules
9:45-10:15am	Break
Auditorium	
10:15-12:30pm	Plenary talks #2, 3, & 4 (Chair: Keh-Fei Liu)
10:15am	Douglas N.C. Lin (UC, Santa Cruz) Origin and Evolution of Extra Solar Planets
11:00am	Xin-Nian Wang (Lawrence Berkeley Lab.) A Drop of Perfect Liquid from RHIC
11:45am	N. Phuan Ong (Princeton U.) Vorticity in the Phase Diagram of Cuprates: Evidence from Nernst Effect and Torque Magnetometry
12:30-1:30pm	Lunch
1:30-3:00pm	Parallel session (P1)*
	Room
	AA1 Big Projects C02
	AM01 Atomic & Molecular Physics I VIP
	BP1 Biological Signaling A04
	CMPA1 Magnetism I A02
	CMPB1 Computational CMP A05
	NP1 Hadron Structure and Spectroscopy C04
	TM1 Strings C03
3:00-3:30pm	Break
3:30-5:00pm	Parallel session (P2)*
	Room
	AG1 Classical Gravity C02

	AM02	Atomic & Molecular Physics II	VIP
	AP1	Beam Dynamics in High Energy Accelerators	A01
	BP2	Gene Regulatory Networks	A04
	CMPA2	Magnetism II	A02
	CMPB2	Thermoelectrics and Energy Related Materials I	A05
	NP2	Fundamental Aspects in Nuclear Physics	C04
	TM2	Darwin Chang Memorial	C03
5:30-7:30pm	Reception (Chair: Sai-ping Li)		
7:30-9:00pm	<i>OCPA Business meeting (Jen-chien Peng)</i>		

June 28, Wednesday

9:00-10:30am	Parallel session (P3)*		
			Room
	AA2	Cosmology	C02
	AM03	Cold Atoms	C03
	AP2	Synchrotron Radiation Issues	C01
	CHP1	Chemical Physics I	A04
	CMPB3	Thermoelectrics and Energy Related Materials II	A05
	COM1	Computational Condensed Matter	A02
	NP3	Relativistic Heavy Ion Collision	C04
	SN1	Statistical Physics	VIP
10:30-11:00am	Break		
Room A02			
11:00-12:30pm	Education Forum (Chair: Albert Chang)		
11:00am	Maw-kuen Wu		
11:45am	Sheng-Fan Ren		
12:30-1:30pm	Lunch		
1:30-3:00pm	Parallel session (P4)*		
			Room

	AA3	Star formation	C02
	AMO4	Quantum Information	VIP
	AP3	High Intensity Proton Source, Industrial and Medical Applications	C01
	CHP2	Chemical Physics II	A04
	CMPA3	Spintronics I	A02
	NP4	Instrumentations and New Facilities	C04
	PP1	Magnetic Fusion	C03
	TM3	Condensed Matter Physics	A05
3:00-3:30pm	Break		
3:30-5:30pm	Poster session (Chair: Henry Tsz-King Wong)		

June 29, Thursday

9:00-10:30am	Parallel session (P5)*		
			Room
	AG2	Quantum Gravity	C02
	AMO5	Optics I	VIP
	AP4	New Concepts of Acceleration	C01
	BP3	Molecular biophysics	A04
	CMPA4	Spintronics II	A02
	CMPB4	Recent Progress in the Physics of High-Tc Superconductivity (I)	A05
	COM2	Computational Astrophysics	C03
	HEP1	Neutrino and Lepton Physics	C04
10:30-11:00am	Break		
11:00-12:30pm	Parallel session (P6)*		
			Room
	AG3	Black Holes and Early Universe	C02
	AMO6	Optics II	VIP
	CHP3	Chemical Physics III	C04
	CMPA5	Quantum Computer	A02
	CMPB5	Recent Progress in the Physics of High-Tc Superconductivity (II)	A05
	HEP2	Heavy Quark, CP Violation, and Hadron	C04

	Physics	
PP2	Space and Astrophysical Plasmas	C03
SN2	Bioinformatics	C01
12:30-1:30pm	Lunch	
		Room A02
1:30-3:45pm	Plenary talks #5, 6, & 7 (Chair: Jen-Chieh Peng)	
1:30pm	Mei-Yin Chou (Georgia Tech.) Quantum Theory of Semiconductor Nanowires: First-Principles Studies of their Electronic, Vibrational, and Optical Properties	
2:15pm	Yifang Wang (IHEP, Chinese Academy) The Quest for the Ultimate Structure of the Matter and Universe - Particle Physics in China	
3:30pm	Wei-Shu Hou (National Taiwan U.) A Touch of Flavor, and CP Nonconservation - Taiwan's involvement at the Beauty Factory	
4:15-4:45pm	Break	
		Room A02
4:45-6:15pm	Diversity versus Excellence (Chair: Nai-chang Yeh) Panelist: Mei-Yin Chou, Raynien Kwo, Ting-Kuo Lee, Jen-Chieh Peng, Ling-An Wu, Maw-Kuen Wu	
		101 Building, 5th floor
7:30pm	Banquet (Chairs: Sai-ping Li and Jen-chieh Peng)	

June 30, Friday

9:00-10:30am	Parallel session (P7)*	
		Room
AA4	Galaxies and ISM	C02
CHP4	Chemical Physics IV	C04
COM3	Computational HEP	VIP
CMPA6	Nano-physics I	A02
CMPB6	Recent Progress in the Physics of	A05

	High-Tc Superconductivity (III)	
HEP3	TeV Scale Physics	C04
PP3	Laser Plasma Interaction and High Energy Density Physics	C03
SN3	Networks	C01

10:30-11:00am Break

Room A02

11:00-12:30pm Plenary talks #8 & 9
(Chair: **Bing-lin Young**)

11:00am **Yu Lin** (Auburn U.)
Physics of the Solar Wind-Magnetosphere Interaction

11:45pm **Robert McKeown** (Cal Tech) Neutrino Masses and Oscillations: Triumphs and Challenges

12:30-1:30pm Lunch

1:30-3:00pm Parallel session (P8)*

		Room
AA5	Compact objects and HE Astrophysics	C02
CHP5	Chemical Physics V	C04
CMPA7	Materials Physics	A02
CMPB7	Hot Topics in CMP	A05
HEP4	Beyond the Standard Model	C04
PP4	Coherent Radiation/Low Temperature Plasmas	C03
SN4	Nonlinear Physics	C01
SI	Experimental Studies on the Basis of Acupuncture	VIP

3:00-3:30pm Break

Auditorium

3:30-4:30 pm Plenary talk #10 & closing ceremony
(Chair: **Wu-tsung Weng**)
Yuan T. Lee

*******See you all in 2009!*******

*Parallel Sessions and room assignment

Room			
VIP:亞歷山大廳	A02:蘇格拉底廳	A04: 阿基米德廳	A05:洛克廳
C01: 達文西廳	C02: 拉斐爾廳	C03:米開朗基羅廳	C04:尼采廳

AA1-5: Astronomy/Astrophysics

AA1 Big Projects (Chair: Chi Yuan) - P1, Rm C02

AA1-1 Pual Ho (ASIAA, pho@asiaa.sinica.edu.tw)

Status of ALMA and SMA (12+3 min)

AA1-2 Ming-Tang Chen (ASIAA, mchen@asiaa.sinica.edu.tw)

The Array for Microwave Background Anisotropy (12+3 min)

AA1-3 Typhoon Lee (ASIAA, typhoon@gate.sinica.edu.tw)

TAOS (12+3 min)

AA1-4 Xiang-qun Cui (NIAOT, xcui@niaot.ac.cn)

Progress and Prospect of LAMOST Project (12+3 min)

AA1-5 Ti-Pei Li (IHEP & THU, litp@mail.tsinghua.edu.cn)

HXMT - A Chinese Black Hole Probe (12+3 min)

AA1-6 Ren-Dong Nan (NAOC, nrd@bao.ac.cn)

Introduction to FAST: Five Hundred Meter Spherical radio Telescope (12+3 min)

AA2 Cosmology (Chair: Howard Yee) - P3, Rm C02

AA2-1 Howard Yee (U-Toronto)

The Red-Sequence Cluster Survey: Cosmological Parameters and Galaxy Cluster Evolution (15+3 min)

AA2-2 Xiaohui Fan (U-Arizona, fan@as.arizona.edu)

First Quasars and the End of Cosmic Dark Ages (15+3 min)

AA2-3 Yi-Peng Jing (Shanghai AO, yping@shao.ac.cn)

The Influence of Baryons on the Matter Distribution (15+3 min)

AA2-4 Huan Lin (Fermi Lab, hlin@fnal.gov)

The Dark Energy Survey (15+3 min)

AA2-5 Chao-Lin Kuo (JPL, clkuo@astro.caltech.edu)

Searching for Gravitational Background Radiation with CMB

	Polarization (15+3 min)
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AA3	Star Formation (Chair: Qizhou Zhang) - P4, Rm C02
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AA3-1	Zhi-Yun Li (U.Va, zl4h@astsun.astro.virginia.edu) Cluster Formation in Protostellar Outflow-Driven Turbulence (15+3 min)
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AA3-2	Hsien Shang (ASIAA, shang@asiaa.sinica.edu.tw) Jets and Outflows from Young Star (15+3 min)
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AA3-3	Yuefang Wu (Peking U, yfwu@vega.bac.pku.edu.cn) Ammonia Cores and Massive Star Formation (15+3 min)
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AA3-4	Di Li (JPL, Di.Li@jpl.nasa.gov) Observational Constraints for the Early Phases of Star Formation - Time Scale and Core Mass Function (15+3 min)
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AA3-5	Michael Cai (ASIAA, studbud@asiaa.sinica.edu.tw) X-wind - The Saga Continues (15+3 min)
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AA4	Galaxies and ISM (Chair: You-Hua Chu) - P7, Rm C02
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AA4-1	You-Hua Chu (UIUS, chu@astro.uiuc.edu) Star Formation and Energy Feedback in the ISM of the Large Magellanic Cloud (15+3 min)
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AA4-2	Yu Gao (Caltech, gao@ipac.caltech.edu) The Global Star Formation Law: from Dense Cores in Galaxy to Hyperluminous Galaxies at High-z (15+3 min)
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AA4-3	JinLin Han <hjl@ns.bao.ac.cn> Progress on Understanding the Magnetic Fields of Our Galaxy (15+3 min)
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AA4-4	Luis Ho <lho@ociw.edu> Black Holes and Their Impact on Galaxies (15+3 min)
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AA4-5	Sun Kwok (hku, sunkwok@hku.hk) Atomic, Molecular, and Solid-State Radiation Processes in the Interstellar Medium (15+3 min)
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AA5	Compact Objects and HE Astrophysics (Chair: Ron Taam) P8, Rm C02
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AA5-1	Kwong Sang Cheng (HKU, hrspksc@hkucc.hku.hk) High Energy Radiation from Pulsars and Pulsar Wind Nebulae (12+3 min)
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AA5-2	Yichou Chou (NCU, yichou@astro.ncu.edu.tw) Anomalous torques on the accretion-powered millisecond pulsars? (12+3 min)
AA5-3	Zhiqiang Shen (Beijing U, wuxb@vega.bac.pku.edu.cn) VLBI Study of Sgr A* - A supermassive black hole in the center of the Milky Way (12+3 min)
AA5-4	Ronald Taam (NWU, aam@tonic.astro.northwestern.edu) The Evolution of Ultra Compact Low Mass X-ray Binaries (12+3 min)
AA5-5	Feng Yuan (Shanghai AO, fyuan@shao.ac.cn) Accretion onto the supermassive black hole at the Galactic Center (12+3 min)
AA5-6	Xue Bing Wu (Beijing U, wuxb@vega.bac.pku.edu.cn) The Fundamental Plane of Astrophysical Black Holes (12+3 min)

AG1-3: Astronomy/Gravity

AG1 Classical Gravity (Chair: Chopin Soo) - P2, Rm C02

AG1-1	Edward Teo (Nat. U. of Singapore, phyteoe@leonis.nus.edu.sg or eteo@ictp.it) The C-metric (18+4 min)
AG1-2	Anzhong Wang (Baylor U., Anzhong_Wang@baylor.edu) Accelerating Universe in Randall-Sundrum Models of Two 3-Branes (18+4 min)
AG1-3	Hing Tong Cho (Tamkang U.) Asymptotic quasinormal frequencies of different spin fields (18+4 min)
AG1-4	Chun-Hsien Wu (AS) Constraints on the Duration of Inflationary Expansion from Quantum Stress Tensor Fluctuations (18+4 min)

AG2 Quantum Gravity (Chair: Roh-suan Tung) - P5, Rm C02

AG2-1	Yongge Ma (Beijing Normal U., mayg@bnu.edu.cn) Loop Quantum Gravity: A Background Independent Approach to Quantum General Relativity (18+4 min)
AG2-2	Bin Zhou (Beijing Normal U., zhou@bnu.edu.cn) Unification of Conformally Invariant Theories on de Sitter,

	anti-de Sitter, and Minkowski Spaces (18+4 min)
AG2-3	Chung-Hsien Chou (AS, chouch@phys.sinica.edu.tw) Black Hole Entropy in Loop Quantum Gravity and a New Estimate of the Immirzi Parameter (18+4 min)
AG2-4	Chopin Soo (NCKU, cpsoo@mail.ncku.edu.tw) Reformulation of the Wheeler-DeWitt Equation (18+4 min)

AG3	Black Holes and Early Universe (Chair: Hing Tong) - P6, Rm C02
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AG3-1	Xuelel Chen (Nat. Astronomical Obs., CAS., xuelel@bao.ac.cn) Probing the High Redshift Universe with 21cm Observations (18+4 min)
AG3-2	Kin-Wang Ng (AS, nkW@phys.sinica.edu.tw) Galaxy Formation from Quantum Noise (18+4 min)
AG3-3	Roh-Suan Tung (Shanghai Normal U., tung@shnu.edu.cn) Dynamical Untrapped Hypersurfaces and their Applications in Numerical Relativity (18+4 min)
AG3-4	John E. Wang (NCTS, jwang@phys.cts.nthu.edu.tw) The Black Hole Code (18+4 min)

AM01-6: Atomic, Molecular & Optical Physics

AM01	Atomic & Molecular Physics I (Chair: Z. C. Yan) - P1, Rm VIP
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AM01-1	Yaming Zou (Fudan U., zouym@fudan.edu.cn) The progress at Shanghai EBIT (18+4 min)
AM01-2	Tai-Sone Yih (NCU, tsyih@phy.ncu.edu.tw) Absolute photoabsorption Cross Section of He 3 ⁻ Resonance (18+4 min)
AM01-3	Yi-Wei Liu (Tsinghua U., Hsinchu, ywliu@phys.nthu.edu.tw) Testing Fundamental Atomic Physics using Optical Frequency Comb (18+4 min)
AM01-4	Yin-Yu Lee (NSRRC, yylee@nsrrc.org.tw) High Resolution Pulsed Field Ionization Multi-photon Spectroscopy using Synchrotron Radiation and Laser (18+4 min)

AMO2 Atomic & Molecular Physics II (Chair: T. S. Yih) - P2, Rm VIP

AMO2-1 Andy Kung (IAMS, AS, akung@pub.iams.sinica.edu.tw)
Molecular Modulation in Hydrogen Gas for Attosecond Pulse Generation (18+4 min)

AMO2-2 Zong-Chao Yan (U. of New Brunswick, zyan@unb.ca)
Precision Calculation of Lithium (18+4 min)

AMO2-3 Te-Kuei Fang (FuJen Catholic U., phys2018@mails.fju.edu.tw)
B-spline-based Complex-rotation Method with Spin-dependent Interaction for Atomic Ionization (18+4 min)

AMO2-4 Ting-Yun Shi (Wuhan IoP and Math., CAS, tyshi@wipm.ac.cn)
Application of B-splines in Atom and Molecule in Strong Magnetic Field (18+4 min)

AMO3 Cold Atoms (Chair: D. J. Han) - P3, R, Rm C03

AMO3-1 Zheng-Tian Lu (Argonne Nat. Lab/U. of Chicago, lu@anl.gov)
Laser Trapping of Radium-225 Atoms and Progress Towards an Electric Dipole Moment Measurement (18+4 min)

AMO3-2 Mingsheng Zhan (Wuhan IoP. and Math. , CAS, mszhan@wipm.ac.cn)
Spectra of Ba: Isotope Shifts and Hyperfine Splitting of Lower States and External Field Effects of Rydberg States (18+4 min)

AMO3-3 Yiqiu Wang (Peking U., wangyq@pku.edu.cn)
From Bose-Einstein Condensate to Multimode Atom Lasers (18+4 min)

AMO3-4 Dian-Jiun Han (NCCU, djhan@phy.ccu.edu.tw)
Time Evolution of Freely Expanded Bose-Einstein Condensates Containing Small Numbers of Atoms (18+4 min)

AMO4 Quantum Information (Chair: W. M. Zhang) - P4, Rm VIP

AMO4-1 Lu Jeu Sham (UC, San Diego, lsham@ucsd.edu)
Restoring the Lost Coherence (25+5 min)

AMO4-2 Choo Hiap Oh (Nat. U. of Singapore, phyohch@nus.edu.sg)
Entanglement of Multi-qubits (25+5 min)

AMO4-3 Yuehnan Chen (NCTU, ynchen.ep87g@nctu.edu.tw)
Teleportation of Charge Qubits via Superradiance (25+5 min)

AMO5 Optics I (Chair: L. A Wu) - P5, Rm VIP

AMO5-1 Ling-An Wu (IoP., CAS., wula@aphy.iphy.ac.cn)

	An Absolute Self-calibration Method to Measure the Quantum Efficiency of a Single-photon Detector (20+5 min)
AM05-2	Jing Zhang (Shanxi U., jzhang74@yahoo.com) Continuous-Variable Quantum Communication with Bright EPR Beam (20+5 min)
AM05-3	Kaige Wang (Beijing Normal U., wangkg@bnu.edu.cn) From Hanbury-Brown and Twiss Experiment to the Second-Order Double-Slit Interference for Incoherent Light (16+4 min)
AM05-4	Nian-Hua Liu (Nanchang U., nhliu@ncu.edu.cn) Spontaneous Emission Rates in Layered Structures Composed of Left-hand-material and Right-hand-material (16+4 min)
AM06	Optics II (Chair: W.P. Zhang) - P6, Rm VIP
AM06-1	Weiping Zhang (East China Normal U., wpzhang@phy.ecnu.edu.cn) Quantum Tunneling Time of Cold Atoms through a Laser Beam (16+4 min)
AM06-2	Yifu Zhu (Florida international U., Miami, yifuzhu@fiu.edu) Control Light Amplitude and Phase in a Coherent Medium (20+5 min)
AM06-3	K.W. Cheah (HK Baptist U., kwcheah@hkbu.edu.hk) Surface Plasmon Coupling in Hexagonal Textured Metallic Microcavity (20+5 min)
AM06-4	Junxiang Zhang (Shanxi U., zhangjxparis@yahoo.com) Quantum Properties of Weak Light in Quantum Coherence Medium (16+4 min)

AP1-4: Accelerator Physics

AP1	Beam Dynamics in High Energy Accelerators (Chair: Lee C. Teng) - P2, Rm C01
AP1-1	Kuo-tung Hsu (NSRRC, kuotung@nsrrc.org.tw) Feedback and Instabilities and Top-up Operation (20+3 min)
AP1-2	Junhua Wang (USTC, wjhua@ustc.edu.cn) Measuring Analysis of Instability and Transverse Feedback System of HLS (20+3 min)
AP1-3	Alex Chao (SLAC, achao@slac.stanford.edu) General Formulation of Finding Emittance under Perturbing

	Mechanism in Electron Storage Ring (20+3 min)
AP1-4	Bocheng Jiang (SSRF, jiangbocheng@sinap.ac.cn) Simulation of Touschek Lifetime for SSRF Storage Ring (20+3 min)
AP2	Synchrotron Radiation Issues (Chair: Chuangxiang Tang) - P3, Rm C01
AP2-1	Guimin Liu (SSRF, liugm@sinap.ac.cn) Nonlinear Optimizations for SSRF Storage Ring (20+3 min)
AP2-2	Chin-Cheng Kuo (NSRRC, cckuo@nsrrc.org.tw) 3 GeV Synchrotron Light Source Design (20+3 min)
AP2-3	Chaeon Wang (NSRRC, rfwang@nsrrc.org.tw) The Superconducting RF Project at TLS - Specifications, Integrations, Commissioning, and Routine Operation (20+3 min)
AP2-4	Wai-Keung Lau (NSRRC, wklau@nsrrc.org.tw) Short Bunch Beam and Its Applications (20+3 min)
AP3	High Intensity Proton Source, Industrial and Medical Applications (Chair: Wu-Tsung Weng) - P4, Rm C01
AP3-1	Jiawen Xia (IMP, CAS, xiajw@impcas.ac.cn) The Initial Commissioning of CSRm (20+3 min)
AP3-2	Qing Qin (IHEP, CAS qinq@ihep.ac.cn) Accelerator Physics Design on the RCS of BSNS (20+3 min)
AP3-3	Chuangxiang Tang (Tsinghua U., Beijing, Tang.xuh@mail.tsinghua.edu.cn) Low Energy Linacs Developed for Industrial Applications (20+3 min)
AP3-4	Ching-Hung Ho (Accuray Inc., chingho@accuray.com) Medical Linac and Radiosurgery (20+3 min)
AP4	New Concepts of Acceleration (Chair: Yuan-Chung Liu) - P5, Rm C01
AP4-1	Yen-Chieh Huang (NTHU, ychuang@ee.nthu.edu.tw) Generation and Acceleration of Density-modulated Electron Beam (18+4 min)
AP4-2	Szu-Yuan Chen (IAMS, sychen@l1.iams.sinica.edu.tw) Laser-plasma Accelerator (18+4 min)

AP4-3	Xiaozhong He (Tsinghua U., Beijing) Low Emittance Photoinjector at Tsinghua University (18+4 min)
AP4-4	Yuan-Yao Lin (NTHU, d928103@oz.nthu.edu.tw) Grating-waveguide Free-electron Laser (10+2 min)
AP4-5	Bin-Chen Tzeng (NTHU, g944135@oz.nthu.edu.tw) Smith-Purcell Superradiance (10+2 min)

BP1-3: Biophysics

BP1 Biological Signaling (Chair: Jian-min Yuan) - P1, Rm A04

BP1-1 **Donald C Chang** (HKUST., bochang@ust.hk)
Using Biophotonics to Investigate the Signaling Mechanism of Programmed Cell Death (40+5 min)

BP1-2 **Jian-Min Yuan** (Drexel U., yuanjm@drexel.edu)
Unraveling Design Principles of Signaling Pathways and Controlling Output Signals using Non-equilibrium Thermodynamics and Sensitivity Analysis (40+5 min)

BP2 Gene Regulatory Networks (Chair: Hualin Shi) - P2, Rm A04

BP2-1 **Runsheng Chen** (Inst. Bio. S., CAS., crs@sun5.ibp.ac.cn)
Organisation of the Caenorhabditis elegans small non-coding transcriptome: Genomic Features, Biogenesis and Expression (25+5 min)

BP2-2 **Hualin Shi** (ITP, shihl@itp.ac.cn)
Genetic Toggle Switch with Transcriptional Interference and Auto-repression (25+5 min)

BP2-3 **Chen-shan Chin** (UCSF, cschin@genome.ucsf.edu)
Studying Gene Regulation Dynamics at the Systems Level with Flow Cytometry (25+5 min)

BP3 Molecular Biophysics (Chair: Shi-Jie Chen) - P5, Rm A04

BP3-1 **Jie Yan** (Nanyang U., phyyj@nus.edu.sg)
Electrostatic Free Energy Landscapes for Nucleic Acid

	Helix-Helix Assembly (25+5 min)
BP3-2	Shi-Jie Chen (U. of Missouri-Columbia, chenshi@missouri.edu) Electrostatic Free Energy Landscapes for Nucleic Acid Helix-Helix Assembly (25+5 min)
BP3-3	Aihua Xie (Oklahoma State U., xaihua@okstate.edu) Explore Protein Structural Dynamics: Experimental And Computational Developments In Time-Resolved FTIR Spectroscopy (25+5 min)

CHP1-5: Chemical Physics

CHP1	Chemical Physics I (Chair: Cheuk-Yiu Ng) – P3, Rm A04
CHP1-1	Cheuk-Yiu Ng (UC, Davis, cyng@chem.ucdavis.edu) Two-color Photoionization and Photoelectron Studies by Combining Infrared and Vacuum Ultraviolet Lasers (16+4 min)
CHP1-2	Ying-Cheng Chen (AS, chenyc@pub.iams.sinica.edu.tw) Cold Molecules: Formation, Trapping and Dynamics (12+3 min)
CHP1-3	Kuo-mei Chen (NSYSU, kmchen@mail.nsysu.edu.tw) Quantum Theory of ICN Photodissociation: Density Matrices of Photofragments from a Parallel Transition (16+4 min)
CHP1-4	Po-Yuan Cheng (Tsinghua U., Hsinchu, pycheng@mx.nthu.edu.tw) Femtosecond Photodissociation Dynamics of Dimethyl Sulfoxide: Evidences for a Concerted three-body Dissociation Channel (12+3 min)
CHP1-5	Howe-siang Tan (Nanyang Tech U., howesiang@ntu.edu.sg) Ultrafast Dynamics of Water Molecules Confined on a Nanoscopic Length Scale (16+4 min)
CHP2	Chemical Physics II (Chair: Hai-Lung Dai) – P4, Rm A04
CHP2-1	Jer-Lai Kuo (Nanyang Tech U. jlkuo@ntu.edu.sg) Proton Order/Disorder Transitions in Crystalline Phases of Ice (16+4 min)
CHP2-2	Eric Diau (NCTU, diau@cc.nctu.edu.tw) Ultrafast Relaxation in Condensed Phase (12+3 min)
CHP2-3	J. C. Lin (IAMS, AS, jclin@pub.iams.sinica.edu.tw)

	A Single Molecule View of Stilbene Photoisomerization on a Surface using Scanning Tunneling Microscopy (12+3 min)
CHP2-4	Yuh-Lin Wang (IAMS, AS, ylwang@pub.iams.sinica.edu.tw) Fabrication of Nanostructures by Constrained Self-Organization (16+4 min)
CHP2-5	Shuit-Tong Lee (City U. of H.K., apannale@cityu.edu.hk) Synthesis, Atomic Structure and Novel Properties of Silicon Nanowires (16+4 min)
CHP3	Chemical Physics III (Chair: Chung-Hsuan Chen) - P6, Rm A04
CHP3-1	Shihe Yang (HKUST, chsyang@ust.hk) Protein Adsorption on Polymer Monolayers Studied by the Langmuir Technique (16+4 min)
CHP3-2	Nien-Hui Ge (UCI, nhge@uci.edu) Femtosecond Multidimensional Infrared Spectroscopy: Structure and dynamics of Peptides (16+4 min)
CHP3-3	Ying-Chieh Sun (NTNU, sun@ntnu.edu.tw) All-atom Molecular Dynamics Simulation of Folding of Short Helical Peptides (12+3 min)
CHP3-4	Huan-Cheng Chang (IAMS, AS, hcchang@po.oams.sinica.edu.tw) Studying Biomolecular Complexes with Infrared Photodissociation Spectroscopy and Ion Cyclotron Resonance Mass Spectrometry (12+3 min)
CHP3-5	Yung-Ya Lin (UCLA, yylin@chem.ucla.edu) Avalanching Spin Amplification for Contrast and Sensitivity Enhancement in Magnetic Resonance (16+4 min)
CHP4	Chemical Physics IV (Chair: Kopin Liu) - P7, Rm A04
CHP4-1	Fei Qi (USTC, fqi@ustc.edu.cn) Combustion Study with the Tunable Synchrotron Photoionization Technique (16+4 min)
CHP4-2	Dong-Sheng Yang (U. of Kentucky, dyang0@uky.edu) Electron Spectroscopy from diatomics to organometallics (16+4 min)
CHP4-3	S. H. Lee (NSRRC, shlee@nsrrc.org.tw) Crossed-beam Reactions of Nitrogen and Oxygen Atoms with Silane

(12+3 min)

CHP4-4 **Jim J. Lin** (IAMS, AS, jimlin@po.iams.sinica.edu.tw)
Crossed Molecular Beam Studies on Dynamics of some Elementary Reactions (12+3 min)

CHP4-5 **Donghui Zhang** (CAS, zhangdh@dicp.ac.cn)
Quantum Wavepacket Studies of Elementary Reactions (16+4 min)

CHP5 **Chemical Physics V (Chair: Kopin Liu) - P8, Rm A04**

CHP5-1 **Bing Zhang** (Wuhan Inst. of Phys and Math, CAS, bzhang@wipm.ac.cn)
Mass-analyzed Threshold Ionization Spectroscopy and Ultraviolet Photodissociation of 1-bromopropane (16+4 min)

CHP5-2 **Yuxiang Mo** (Tsinghua U., Beijing)
Renner-Teller and Jahn-Teller effect studied by ZEKE spectroscopy (16+4 min)

CHP5-3 **Wei Kong** (Oregon St. U. , wei.kong@oregonstate.edu)
Structural Stability of Aromatic Compounds in the Cationic State: Insights from ZEKE Spectroscopy (16+4 min)

CHP5-4 **Wen-Bih Tzeng** (IAMS, AS, wbt@sinica.edu.tw)
Mass-analyzed Threshold Ionization of some Fused Ring Molecules (12+3 min)

CHP5-5 **Chi-Kung Ni** (IAMS, AS, ckni@po.iams.sinica.edu.tw)
Energy Transfer of Highly Vibrationally Excited Azulene (12+3 min)

CMPA1-7, B1-7: Condense Matter Physics

CMPA1 **Magnetism I (Chair: Ching-Ray Chang) - P1, Rm A02**

CMPA1-1 **Xiu-Feng Han** (IoP, CAS, xfhan@aphy.iphy.ac.cn)
Microfabrication of Completely Spin-valve-type Magnetic Tunnel Junctions Is possible? (18+4 min)

CMPA1-2 **Zhong-Yi Lu** (ITP, CAS, luzy@itp.ac.cn)
The Quantum wells in MgO-based Magnetic Tunneling Junctions (18+4 min)

CMPA1-3 **Xiaofeng JIN** (Fudan U., xfjin@fudan.edu.cn)
Ultrathin Film Magnetism by Surface Manipulation (18+4 min)

CMPA1-4 **Ching Yao Fong** (UC Davis, fong@solid.physics.ucdavis.edu)

Design Spintronic Materials With Simple Structures (18+4 min)

CMPA2 Magnetism II (Chair: Jian Shen) - P2, Rm A02

CMPA2-1 Liu Kai (UC Davis, kailiu@ucdavis.edu)
Fingerprinting Magnetization Reversal in Magnetic Nanostructures (18+4 min)

CMPA2-2 Xincheng Xie (Oklahoma State U., xie@okstate.edu)
Spin Transport and Spin-related Charge Transport (18+4 min)

CMPA2-3 Minn-Tsong Lin (NTU, mtlin@phys.ntu.edu.tw)
Controlled Growth and Magnetism of Self-Assembled Nanoparticles on Single Crystalline Insulating Layers (18+4 min)

CMPA2-4 Jian Shen (ORNL/U. of Tennessee, Shenj@ornl.gov)
Collective Magnetic Behavior in Surface-supported Nanodot Assemblies (18+4 min)

CMPA3 Spintronics I (Chair: S.Q. Shen) - P4, Rm A02

CMPA3-1 Qian Niu (U of Texas, Austin, niu@physics.utexas.edu)
Berry Phase Effect in Anomalous Thermoelectric Transport (25+5 min)

CMPA3-2 Jian Wang (HKU, jianwang@hkusub.hku.hk)
The Conservation of Spin Current (25+5 min)

CMPA3-3 Shun-Qing Shen (HKU, sshen@hkucc.hku.hk)
Electric Transverse Current Induced by Optically Injected Spin Current (25+5 min)

CMPA4 Spintronics II (Chair: Chon-Saar Chu) - P5, Rm A02

CMPA4-1 Ching-Ray Chang (NTU, crchang@phys.ntu.edu.tw)
Rashba-Dresselhaus Spin Precession in Low-Dimensional Electron Systems (18+4 min)

CMPA4-2 Kui-Juan Jin (IoP, CAS, kjjin@aphy.iphy.ac.cn)
The origin causing the Positive Magnetoresistance in Oxide Heterostructures (18+4 min)

CMPA4-3 Juinn-Yuan Lin (IoP, NCTU, ago@cc.nctu.edu.tw)
Novel Transport Properties of the Spin Frustrated Systems (18+4 min)

CMPA4-4 Shoucheng Zhang (Stanford U., sczhang@stanford.edu)

An Exact SU(2) Symmetry and the Persistent Spin Helix
(18+4 min)

CMPA5 Quantum Computer (Chair: Zidan Wang) - P6, Rm A02

CMPA5-1 S. Y. HAN (U. of Kansas, han@ku.edu)
Prospects and Critical Issues of Superconducting Flux Qubits
(18+4 min)

CMPA5-2 Zidan WANG (HKU, zwang@hkucc.hku.hk)
Physical Implementation of General Geometric Quantum
Computation (18+4 min)

CMPA5-3 Yu YANG (Nanjing U., yuyang@nju.edu.cn)
Quantum Dynamics in a Multi-Level Persistent-Current Qubit
(18+4 min)

CMPA5-4 Weimin ZHANG (NCKU, wzhang@mail.ncku.edu.tw)
Charge-to-spin Conversion of Entanglement States and Free-spin
Solid-state Quantum Computer (18+4 min)

CMPA6 Nano-physics I (Chair: Juhn-Jong Lin) - P7, Rm A02

CMPA6-1 Xudong Xiao (HKUST, phxudong@ust.hk)
Pseudogap in Nanostructured Pb Islands (18+4 min)

CMPA6-2 Li Lu (IOP, CAS, lilu@aphy.iphy.ac.cn)
Graphene Nanostructures, Physics and Device (18+4 min)

CMPA6-3 Jia Grace Lu (UC Irvine, jglu@uci.edu)
ZnO nanowires - the building Block for High Performance
Electronics (18+4 min)

CMPA6-4 Yu-Chang Chen (NCTU, yuchangchen@mail.nctu.edu.tw)
Inelastic Effects on the Transport Properties of Nanojunction
Junction (18+4 min)

CMPA7 Materials Physics (Chair: Grace Lin) - P8, Rm A02

CMPA7-1 Juhn-Jong Lin (NCTU, jjlin@cc.nctu.edu.tw)
Zero-Bias Conductance Anomalies in Metal/Insulator/Metal
Tunnel Junctions (18+4 min)

CMPA7-2 Quan Li (CUHK, liquan@sun1.phy.cuhk.edu.hk)
A New Direction for Thermoelectrics (18+4 min)

CMPA7-3 H.C. Hsueh (TamKang U., Taipei, hchsueh@mail.tku.edu.tw)
Structural Stability of Tetragonal PbTiO₃: A Revised Study by

	ab initio Calculation (18+4 min)
CMPA7-4	Qi Li (PSU, qill@psu.edu) Anomalous Magnetoresistance Effects in Strained Manganite Ultrathin Films and Nanostructures(18+4 min)
CMPB1	Computational CMP (Chair: Hai-Qing Lin) - P1, Rm A05
CMPB1-1	Zhang Rui-Qin (City U, H.K., aprqz@cityu.edu.hk) Spin Polarization of the Injected Carriers in C-doped BN Nanotubes (18+4 min)
CMPB1-2	Sun Hong (SJTU, Shanghai, hsun@sjtu.edu.cn) Ab-initio Design of Super-Hard Light-Element Materials (18+4 min)
CMPB1-3	Chen Guan-Hua (HKU, ghc@everest.hku.hk) First-principles Method for Open Electronic Systems (18+4 min)
CMPB1-4	Zeng Zhi (Inst. of Solid State Phys, CAS, zzeng@theory.issp.ac.cn) The first-principles Study on δ -Bi ₂ O ₃ Oxide Ionic Conductivity (18+4 min)
CMPB2	Thermoelectrics and Energy Related Materials I (Chair: Shang-Fen Ren) - P2, Rm A05
CMPB2-1	Li Qiang (Brookhaven NL, liqiang@bnl.gov) A New Direction for Thermoelectrics (18+4 min)
CMPB2-2	Rongyin Jin (Oak Ridge NL, jinr@ornl.gov) Interplay between Kondo Effect and Ferromagnetism (18+4 min)
CMPB2-3	Shang-Fen Ren (ISU, ren@phy.ilstu.edu) Microscopic Investigations of Phonon Thermal Conductivity in SiGe Superlattices (18+4 min)
CMPB2-4	Jiandi Zhang (Florida International U., zhangj@fiu.edu) Scanning Tunneling Spectroscopy of the Surfaces of Ruthenates (18+4 min)
CMPB3	Thermoelectrics and Energy Related Materials II (Chair: Wenqing Zhang) - P3, Rm A05
CMPB3-1	Zhang Wenqing (Inst. of Ceramics, wqzhang@mail.sic.ac.cn) Filling Fraction Limit for Impurity in CoSb ₃ and Searching for New Thermoelectric Materials (25+5 min)
CMPB3-2	Meng Qingbo (IoP, CAS, qbmeng@aphy.iphy.ac.cn)

	Solid State Composite Electrolyte Dye Sensitized Solar Cell (25+5 min)
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CMPB3-3	Lu Yunfeng (U. Tulane, ylu@tulane.edu) (18+4 min) - cancel
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CMPB3-4	Ping Wang (Inst. of Metal Research, CAS, pingwang@imr.ac.cn) Develop Complex Hydrides for Reversible Hydrogen Storage (25+5 min)
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CMPB4	Recent Progress in the Physics of High-Tc Superconductivity (I) (Chair: Ting-Kuo Lee) - P5, Rm A05
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CMPB4-1	Zhi-xun Shen (Stanford U., zxshen@stanford.edu) ARPES Study of High-Tc Superconductors (18+4 min)
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CMPB4-2	Nai-chang Yeh (CalTech, ncyeh@caltech.edu) Competing Orders and Quantum Phase Fluctuations on the Low-Energy Excitations and Pseudogap Phenomena of Cuprate Superconductors (18+4 min)
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CMPB4-3	Pengcheng Dai (The U. of Tennessee, daip@ornl.gov) Resonance in the Electron-doped Superconductor Pr _{0.88} LaCe _{0.12} CuO ₄ (18+4 min)
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CMPB4-4	Chang C. Tsuei (IBM, tsuei@us.ibm.com) d-Wave Gap Symmetry and Pairing Mechanism in High-Temperature Superconductors: The Road to d-wave and Beyond (18+4 min)
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CMPB5	Recent Progress in the Physics of High-Tc Superconductivity (II) (Chair: Nanlin Wang) - P6, Rm A05
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CMPB5-1	Hong Ding (Boston College, dingh@bc.edu) Photoemission Study of High-Tc Cuprates (18+4 min)
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CMPB5-2	T. K. Ng (HKUST, phtai@ust.hk) Unconventional Vortices and Transports in Pseudo-gap Phase of Underdoped Cuprates (18+4 min)
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CMPB5-3	Haihu Wen (IoP, CAS, hhwen@aphy.iphy.ac.cn) Low Energy Quasiparticle Excitations, Fermi Arcs and Superconducting Condensation in Cuprate Superconductors (18+4 min)
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CMPB5-4	Qimiao Si (Rice U., qmsi@rice.edu)
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Quantum Phase Transitions and Non-Fermi Liquid Behavior
(18+4 min)

CMPB6 Recent Progress in the Physics of High-Tc Superconductivity (III) (Chair: Nai-chang Yeh) - P7, Rm A05

CMPB6-1 Nanlin Wang (IoP, CAS, nlwang@aphy.iphy.ac.cn)
Optical properties of NaxCoO_2 single crystals (18+4 min)

CMPB6-2 Wei Bao (LANL, wbao@lanl.gov)
Novel Coexistence of Superconductivity with Two Distinct Magnetic Orders (18+4 min)

CMPB6-3 Kai-Yu Yang (HKU, ustc9602@hkusua.hku.hk)
Phenomenological Theory of the Pseudogap State (18+4 min)

CMPB6-4 Ting-Kuo Lee (AS, tklee@phys.sinica.edu.tw)
Large Spectral Weight Anomalies of the Gutzwiller-projected wave function for the t-J model (18+4 min)

CMPB7 Hot Topics in CMP (Chair: Wei Bao) - P8, Rm A05

CMPB7-1 Di-Jing Huang (NSRRC, djhuang@nsrrc.org.tw)
Spin, Charge, and Orbital Ordering of Transition-metal Oxides Studied by Resonant Soft x-ray Scattering (18+4 min)

CMPB7-2 Hsiu-Hau Lin (NCTS & Tsinghua U., Hsinchu, hsiuhau@phys.nthu.edu.tw)
Non-collinear Exchange Coupling in Trilayer Magnetic Junction and its Connection to Fermi Surface Topology (18+4 min)

CMPB7-3 Rongying Jin (Oak Ridge NL, jinr@ornl.gov)
Is the Thermoelectric Power of Carbon Nanotubes Positive? (18+4 min)

CMPB7-4 Raynien Kwo (Tsinghua U., Hsinchu, raynien@phys.nthu.edu.tw)
High Dielectrics Research For Future Nano-electronics (18+4 min)

COM1-3 Computational Condensed Matter

COM1 Computational Condensed Matter (Chair: Ku Wei) - P3 Rm A02

COM1-1 Dong Jinming (Nanjing U., jdong@nju.edu.cn)

	(25+5 min)
COM1-2	Chan Che-Ting (UST, HK, phchan@ust.hk) A Computational Study of Matter Organized by Light (25+5 min)
COM1-3	Ku Wei (Brookhaven National Lab, weiku@bnl.gov) Filling the Missing Pieces of the Puzzles in Strongly Correlated Systems: Bridging First-principles Methods and Many-body Models (25+5 min)
COM1-4	Xiang Tao (ITP, CAS, txiang@itp.ac.cn) (18+4 min) - cancel
COM2	Computational Astrophysics (Chair: Wai-Mo Suen) - P5, Rm C03
COM2-1	Z. W. Han (Yunnan Obs., Kunming, zhanwen@public.km.yn.cn,) Binary Population Synthesis (15+3 min)
COM2-2	J. L. Lu (Hunan Normal U., Hunan, lujunli61@163.com) Study of Extrinsic Curvature in Numerical Relativity (15+3 min)
COM2-3	W. M. Suen (Washington U., wmsuen@clc.cuhk.edu.hk) Computational General Relativistic Astrophysics: Critical Phenomena in Prompt Collapses of Colliding Neutron Stars (15+3 min)
COM2-4	L. M. Lin (LUTH, Observatoire de Paris, Lap-Ming.Lin@obspm.fr) Rotating-star Initial Data for a Constrained Scheme in Numerical Relativity (15+3 min)
COM2-5	Lixin Zhan (U. of Waterloo, lzhan@sciborg.uwaterloo.ca) Protein structure prediction using basin paving method (15+3 min)
COM3	Computational HEP (Chair: Keh-Fei Liu) - P7, Rm VIP
COM3-1	Ying Chen (IHEP, CAS, chen@ihep.ac.cn) Glueball Mass Spectrum and Matrix Elements on Anisotropic Lattices (18+4 min)
COM3-2	Ting-Wai Chiu (NTU, twchiu@phys.ntu.edu.tw) The Spectrum of Charmonium-like Vector Mesons in Lattice (18+4 min)
COM3-3	Jianbo Zhang (Zhejiang U., jbzhang08@zju.edu.cn) Improved Single Pass CG Method for Calculating Matrix Sign

Function in LQCD (18+4 min)

COM3-4 **Yubin Liu** (Nankai U., liuyb@nankai.edu.cn)
(18+4 min)

HEP1-4: High Energy Physics

HEP1 Neutrino and Lepton Physics (Chair: Kam-Biu Luk or Guey-Lin Lin) - P5, Rm C04

HEP1-1 **Guey-Lin Lin** (NCTU, glin@cc.nctu.edu.tw)
SHINIE: Simulation of High-Energy Neutrino Interacting with the Earth (15+3 min)

HEP1-2 **Chang-Gen Yang** (IHEP, CAS, yangcg@mail.ihep.ac.cn)
Daya Bay Reactor Neutrino Exp. (15+3 min)

HEP1-3 **Shan Jin** (IHEP, CAS, jins@ihep.ac.cn)
Highlights from BESII and Prospects at BESIII (15+3 min)

HEP1-4 **Shin-Ted Lin** (AS, linst@phys.sinica.edu.tw)
Low Energy Neutrino Physics at the Kuo-Sheng Reactor Laboratory in Taiwan (15+3 min)

HEP1-5 **Song-Ming Wang** (AS, smwang@fnal.gov)
Searches for New Physics at the Tevatron (15+3 min)

HEP2 Heavy quark, CP Violation, and Hadron Physics (Chair: Cai-Dian Lu or C.-P. Yuan) - P6, Rm C04

HEP2-1 **Cai-Dian Lu** (IHEP, CAS, lucd@ihep.ac.cn)
Annihilation in Rare B Decays (18+4 min)

HEP2-2 **Paoti Chang** (NTU, pchang@phys.ntu.edu.tw)
CP-violation from B-factories (18+4 min)

HEP2-3 **Yau-Wai Wah** (U. of Chicago, ywah@uchicago.edu)
K_L to pi₀ nu nu_{bar} (15+3 min) - cancel

HEP2-4 **Chuan-Hung Chen** (NCKU, physchen@mail.ncku.edu.tw)
Polarizations of Two Vector Mesons in B Decays (18+4 min)

HEP2-5 **Zuo-Tang Liang** (Shandong U., liang@sdu.edu.cn)
Azimuthal Asymmetries in Semi-inclusive Deep-inelastic Lepton-nucleon Scattering (18+4 min)

HEP3 TeV scale physics (Chair: Hsiang-nan Li or Bing

Zhou) - P7, Rm C04

HEP3-1 **Bing Zhou** (U. of Michigan, (bzhou@umich.edu)
TeV Scale Physics (15+3 min)

HEP3-2 **Suen Hou** (AS, suen@phys.sinica.edu.tw)
TeV Status on Electroweak and Top (15+3 min)

HEP3-3 **Jing Jiang** (University of Oregon, jing@uoregon.edu)
Vector-like Particles at TeV Scale (15+3 min)

HEP3-4 **Shou-Hua Zhu** (Beijing U., huald@th.phy.pku.edu.cn)
Invisible Decay of Higgs Boson (15+3 min)

HEP3-5 **Cheng-Wei Chiang** (NCU, chengwei@phy.ncu.edu.tw)
Low-energy Phenomenology of FCNC Z' (15+3 min)

**HEP4 Beyond the Standard Model (Chair: Wai-Yee Keung or
Shufang Su) - P8, Rm C04**

HEP4-1 **Shufang Su** (U. of Arizona, shufang@physics.arizona.edu)
Phenomenology of Twin Higgs Model (15+3 min)

HEP4-2 **Chung Kao** (Oklahoma U., Kao@physics.ou.edu)
Detecting Higgs Bosons with Muons in Supergravity Unified
Models(15+3 min)

HEP4-3 **Chong Sheng Li** (Beijing U., csli@pku.edu.cn)
Beyond SM (15+3 min)

HEP4-4 **Chia-Hung Chang** (NTNU, chchang@phy.ntnu.edu.tw)
Extra Space Dimension with Non-trivial Shape and Topology (15+3
min)

HEP4-5 **Otto Kong** (NCU, otto@phy.ncu.edu.tw)
Going Beyond the Standard Model -- a personal perspective
(15+3 min)

NP1-4: Nuclear Physics

**NP1 Hadron Structure and Spectroscopy (Chair, Jen-Chieh
Peng) - P1, Rm C04**

NP1-1 **Shan Jin** (IHEP, CAS, jins@mail.ihep.ac.cn)
Recent BES Results from J/Psi Decay (18+4 min)

NP1-2 **Huan Huang** (UCLA, huang@physics.ucla.edu)
Status on Pentaquark search (18+4 min)

NP1-3 **Bo-Qiang Ma** (Peking U., Beijing, mabq@phy.pku.edu.cn)
Recent Results on Nucleon Transversity (18+4 min)

NP1-4 **Hushan Xu** (Inst. of Modern Physics, hushan@impcas.ac.cn)
Hadron Physics at Lanzhou HIRFL-CSR facility (20+4 min)

NP2 **Fundamental Aspects in Nuclear Physics (Chair: Hongjie Xu) - P2, Rm C04**

NP2-1 **Dongming Mei** (Los Alamos Nat. Lab., dmei@lanl.gov)
The Majorana Neutrino Project (18+4 min) - cancel

NP2-2 **Jiuun Wei Chen** (NTU, jwc@phys.ntu.edu.tw)
Recent Progress in Effective Field Theory (23+5 min)

NP2-3 **Jian Ping Chen** (Jefferson Lab, Newport News, jpchen@jlab.org)
Parity-violating Electron Scattering and Test of Standard Model
(26+6 min)

NP2-4 **Chung-Wen Kao** (NCTS, cwkao@phys.cts.nthu.edu.tw)
Nucleon Polarizabilities in Chiral Effective Theory (23+5 min)

NP3 **Relativistic Heavy Ion Collision (Chair: Cheuk-Yin Wong) - P3, Rm C04**

NP3-1 **Yugang Ma** (Inst. of Applied Phys., Shanghai, ygma@sinr.ac.cn)
Scaling of Elliptic Flow for Multi-strange Particles and Light
Nuclear Fragments from Ultra-relativistic Energy to
Intermediate Energy Heavy ion Collisions (18+4 min)

NP3-2 **Wei Xie** (BNL-RIKEN Center, xiewei@rcf.rhic.bnl.gov)
Electromagnetic Probes of Heavy Ion Collisions at RHIC (18+4 min)

NP3-3 **Fuqiang Wang** (Purdue U., fqwang@physics.purdue.edu)
Medium Modified Jet Correlations in Relativistic Heavy Ion
Collisions (18+4 min)

NP3-4 **Chia-Ming Kuo** (NCU, Chia-Ming.Kuo@cern.ch)
Recent Results from PHOBOS at RHIC", for the PHOBOS
Collaboration (20+4 min)

NP4 **Instrumentations and New Facilities (Chair: Huan Huang) - P4, Rm C04**

NP4-1 **Haiyan Gao** (Duke U., gao@phy.duke.edu)
The High Intensity Gamma Source (HIGS) at Duke Free Electron
(16+4 min)

NP4-2	Wenlong Zhan (Inst. of Modern Phys., CAS, Gansu, zhanwl@impcas.ac.cn) The Progress of the CRS Project at IMP (20+5 min)
NP4-3	Hongjie Xu (Inst. of Applied Phys. Shanghai, xuhj@ssrc.ac.cn) The Shanghai Light Source and Future Nuclear Physics Program (20+5 min)
NP4-4	Wen-Chen Chang (IoP, AS, changwc@phys.sinica.edu.tw) Recent Results and Future Plan at Spring-8 (16+4 min)

PP1-4: Plasma Physics

PP1 Magnetic Fusion (Chair: Y.R. Linliu) - P4, Rm C03

PP1-1	Jiangang Li (ASIPP, j_li@ipp.ac.cn) Towards the long pulse steady-state Operation in Hefei superconducting tokamaks (15+3 min)
PP1-2	Yong Liu (SWIP, CN liuyong@swip.ac.cn) Recent Progress of the Fusion Researches at SWIP (15+3 min)
PP1-3	Kuan-Ren Chen (NCKU, chenkr@phys.ncku.edu.tw) Alfvénic and Instability Transition of Relativistic Electromagnetic Ion Cyclotron Instabilities (15+3 min)
PP1-4	Liu Chen (UCI, liuchen@uci.edu) Nonlinear Equilibria, Stability and Generation of Zonal Structures in Toroidal Plasmas (15+3 min)
PP1-5	Vincent Chan (General Atomics, chanv@fusion.gat.com) Kinetic Alfvén Wave Current Drive Generated by Rotating Magnetic Islands (15+3 min)

PP2 Space and Astrophysical Plasmas (Chair: Liu Chen) - P6, Rm C03

PP2-1	Frank Cheng (NSPO, frankcheng@nspo.org.tw) NSPO's Space Science Programs (18+4 min)
PP2-2	Hui Li (LANL, hli@lanl.gov) Supermassive Black Holes, Astrophysical Jets and Extragalactic Magnetic Fields (18+4 min)
PP2-3	Lin-Ni Hau (NCU, ln hau@jupiter.ss.ncu.edu.tw) On the recent debate on slow soliton vs. mirror wave in PRL

	(18+4 min)
PP2-4	Shen-Wu Chang (Alabama, shen.chang@msfc.nasa.gov) Energetic Proton Precipitation into the Ionosphere (18+4 min)
PP3	Laser Plasma Interaction and High Energy Density Physics (Chair: V. Chan) - P7, RM C03
PP3-1	Jyhpyng Wang (AS, jwang@ltdl.iams.sinica.edu.tw) Tabletop Electron Accelerators and Soft X-Ray Lasers Driven by the IAMS 10-TW Laser (15+5 min)
PP3-2	Edison Liang (Rice U., liang@spac.ibm.rice.edu) From Femtosecond to Gigaparsec : Relativistic Plasmas in Astrophysics and in Laser Experiments (25+5 min)
PP3-3	Chuan Ren (U. of Rochester, chren@me.rochester.edu) A Global Simulation for Laser Driven MeV Electrons in Fast Ignition Targets (25+5 min)
PP4	Coherent Radiation/Low Temperature Plasmas (Chair: Yu Lin) - P8, Rm C03
PP4-1	Kwo-Ray Chu (NTHU, krchu@phys.nthu.edu.tw) Nonlinear Investigation of the Electron Cyclotron Maser (18+4 min)
PP4-2	Xiaogang Wang (DLUT, xgwang@dlut.edu.cn) Scalings of Steady State Hall MHD Reconnection in High-beta Plasmas (18+4 min)
PP4-3	Lin I (NCU, lini@phy.ncu.edu.tw) Is Liquid Still Liquid in a Mesoscopic Channel (18+4 min)
PP4-4	Yon-Nian Wang (DLUT, ynwang@dlut.edu) Fluid Simulations of Dual Frequency Capacitively Coupled Plasmas (18+4 min)

SN1-4: Non-linear/Statistical Physics

SN1	Statistical Physics (Chair: Shu-Chiuan Chang) - P3, Rm VIP
SN1-1	Yong Kong (Nat. U. of Singapore, ykong@nus.edu.sg) Some Recent Results of the Monomer-dimer Model in 2D Lattices

	(18+4 min)
SN1-2	Youjin Deng (New York U., ydl0@nyu.edu) Cluster Simulation of the $O(N)$ Loop Model (18+4 min)
SN1-3	Bo Zheng (Zhejiang U., zheng@zimp.zju.edu.cn) Statistical Physics and its Applications (18+4 min)
SN1-4	Shu-Chiuan Chang (NCKU, scchang@mail.ncku.edu.tw) Transfer Matrices of Potts Model Partition Function for Lattice Strips (18+4 min)
SN2	Bioinformatics (Chair: Yi Kuo Yu) - P6, Rm C01
SN2-1	Hoong Chien Lee (NCU, hclee@phy.ncu.edu.tw) Emergence and Spontaneous Symmetry Breaking in Genomes by Cellular Automata (18+4 min)
SN2-2	Yi Kuo Yu (NIH, yyu@ncbi.nlm.nih.gov) Electrostatics of Charged Dielectric Spheres with Application to Biological Systems (18+4 min)
SN2-3	Sun-Chong Wang (IoP, AS, scwang@phys.sinica.edu.tw) Zipf's Law in Genomic DNA Methylation (18+4 min)
SN2-4	Haijun Zhou (ITP, CAS, zhouhj@itp.ac.cn) Response Efficiency of Biomimetic Networks: A Case-study on the Local-majority Rule Dynamics (18+4 min)
SN3	Networks (Chair: Ying Cheng Lai) - P7, Rm C01
SN3-1	Ying Cheng Lai (Arizona State U., yclai@chaosl.la.asu.edu) Transiently Chaotic Neural Networks and Snapback Repellers (18+4 min)
SN3-2	Chih Wen Shih (NCTU, cwshih@math.nctu.edu.tw) Transiently Chaotic Neural Networks and Snapback Repellers (18+4 min)
SN3-3	Xin Gang Wang (Nat. U. of Singapore, phywxg@nus.edu.sg) Oscillations of Complex Networks (18+4 min)
SN3-4	Bing Hong Wang (USTC, bhwang@ustc.edu.cn) Scaling Invariance in Spectra of Complex Networks (18+4 min)
SN4	Nonlinear Physics (Chair: Bambi Hu) - P8, Rm C01
SN4-1	Bambi Hu (HK Baptist U. & U. Houston, bhu@hkbu.edu.hk) Heat Conduction in the Frenkel-Kontorova Model (18+4 min)

SN4-2	Chin Kun Hu (AS, huck@phys.sinica.edu.tw) Correlated Matrix Approach to Stock Markets and Earthquake Signals (18+4 min)
SN4-3	Gang Hu (Beijing Normal U., ganghu@bnu.edu.cn) (18+4 min)
SN4-4	Baowen Li (Nat. U. of Singapore, phylibw@nus.edu.sg) Thermal Diode and Thermal Transistor: The Art of Controlling Heat Flow (18+4 min)

SI: Special Interest

SI Experimental Studies on the Basis of Acupuncture (Chair: Cheuk-Yin Wong) - P8, Rm VIP

SI-1	Rong-Seng Chang (NCU, rschang2000@yahoo.com.tw) The Overview of Evidence of Acupuncture and Qi (25+5 min)
SI-2	Shui Yin Lo and Effie Chow (Quantum Health Research Inst., ideacclinic@yahoo.com) Evidence of Qi and Symmetry Principle in Health with an Experimental Demonstration (55+5 min)

TM1-3: Theoretical/Mathematical Physics

TM1 Strings (Chair, Pei-ming Ho) - P1, Rm C03

TM1-1	Chuan-Tsung Chan (NCTS, ctchan@phys.cts.nthu.edu.tw) Mysterious Symmetry in String Theory (18+4 min)
TM1-2	Chong-Sun Chu (U. of Durham, chong-sun.chu@durham.ac.uk) Beta-deformed Gauge Theory and AdS/CFT Correspondence (18+4 min)
TM1-3	Yang-Hui He (Oxford U., yang-hui.he@merton.ox.ac.uk) The Standard Model and the Heterotic String (18+4 min)
TM1-4	Gary Shiu (U. of Wisconsin, shiu@physics.wisc.edu) Progress and Prospects of String Cosmology (18+4 min)

TM2	Darwin Chang Memorial (co-Chair, Hai-yang Cheng and Kingman cheung) - P2, Rm C03
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TM2-1	Tony Zee (UCSB, zee@kitp.ucsb.edu)
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	In Memory of Darwin Chang (25+5 min)
TM2-2	Goran Senjanovic (ICTP, Trieste, goran@ictp.it) (18+4 min) - cancel
TM2-3	Wai-Yee Keung (U. of Illinois, keung@uic.edu) Darwin Chang's Contribution in High Energy Physics (25+5 min)
TM2-4	Xiao-Gang He (NTU, hexg@phys.ntu.edu.tw) CP Violation - Spontaneous or not? (25+5 min)
TM3	Condensed Matter Physics (Chair, Fu-chun Zhang) - P4,Rm A05
TM3-1	Guang Ming Zhang (Tsinghua U., Beijing, gmzhang@mail.tsinghua.edu.cn) Valence Bond Theory for Spin Nematic Ordered Phase of Spin-1 Boson Atoms in Optical Lattices (18+4 min)
TM3-2	Xin Wan (Zhejiang U., xinwan@zimp.zju.edu.cn) Topological Orders in Fractional Quantum Hall Effect (18+4 min)
TM3-3	Xi Dai (HKU, daix@hkucc.hku.hk) Light Induced Hall Effect in Semiconductors with Spin-orbit Coupling (18+4 min)
TM3-4	Fei Zhou (U. of British Columbia, feizhou@phas.ubc.ca) An Overview of the Physics of Ultra Cold Atoms: new Developments and Open Questions(18+4 min)

Poster Session

(Chair: Henry Tsz-King Wong)

AA

- PS-1** **M. Ayub Faridi** (CHEP Punjab Lahore U., Pakistan,
ayubfaridi@chep.pu.edu.pk)
Some Foliations of Schwarzschild Spacetime
-
- PS-2** **Jian-E HE** (Wuhan U., jehe@whu.edu.cn)
The Nature of Dark Energy
-
- PS-3** **Ming-Huey A. Huang** (National United U., mahuang@nuu.edu.tw)
Possible Sources for SHALON up-going Events
-
- PS-4** **Chi Yuan** (AS, yuan@asiaa.sinica.edu.tw)
The Structure, Evolution and instability of a Self-gravitating
Gaseous Disk in Astrophysics
-

AMO

- PS-5** **Jiansheng Zhang** (Xi'an Institute of Tech., zhangjsh@sohu.com)
Wavelet Analysis on Managing of Wake Optical Specialty
-
- PS-6** **Gergely Imreh** (U. of Oxford, g.imreh1@physics.ox.ac.uk)
Deterministic Entanglement and Long Coherence Times in Ion Traps
for Quantum Computation
-
- PS-7** **Shiang-Yi Han** (NCKU, mars@rpv.iaa.ncku.edu.tw)
Qantum Motion in Entangled State of Hydrogen Atom in Complex
Space
-

BP

- PS-8** **Yuguang Mu** (Nanyang Tech U., ygmu@ntu.edu.sg)
A New Method of Replica-Exchange Simulation for Protein Folding
-
- PS-9** **Zicong Zhou** (TKU, zzhou@mail.tku.edu.tw)
Elasticity of a Helical Filament under Twisting
-

CMP

- PS-10** **Jianyi Lin** (Inst. of Chemical and Engineering Sciences,
Singapore, lin_jianyi@ices.a-star.edu.sg)
Green Phosphoresce and Photostability of Mg-doped ZnO Nanowires
-

PS-11	Yuan-Hong SONG (Dalian U. of Tech, songyh@dlut.edu.cn) Theoretical Study of Clusters Moving in Metal Oxides
PS-12	Zhe Chuan Feng (NTU, zcfeng@cc.ee.ntu.edu.tw) Time-Resolved, Temperature-Dependent and Excitation Photoluminescence from InGaN/GaN Multiple Quantum Well Light Emitting Diode Wafers by Metalorganic Chemical Vapor Deposition
PS-13	Zhe Chuan Feng (NTU, zcfeng@cc.ee.ntu.edu.tw) Optical, Magnetic, and Structural Studies of Transition Metal-doped ZnO Bulk Crystals and Thin Films
PS-14	Zhe Chuan Feng (NTU, zcfeng@cc.ee.ntu.edu.tw) Structural and Magnetic Properties of Multifunctional GaN Nanostructures using SK-like Growth Mode
PS-15	Zhe Chuan Feng (NTU, zcfeng@cc.ee.ntu.edu.tw) Raman and Optical Transmission Studies of Transition Metal Doped GaN Thin Films
PS-16	Ming Ting Kuo (NCU, mtkuo@ee.ncu.edu.tw) Time-dependent Tunnelling Current Associated with the Spontaneous Radiative Transition in Individual Quantum Dots
PS-17	Yu-Wen Liao (IAMS, AS, lab327kimo@yahoo.com.tw) Thermal Desorption and Growth of Self-aligned Oxide on NiAl(100)
PS-18	Cheng-Hao Chuang (NTU, d93222017@ntu.edu.tw) Electronic Structure Mapping in CNTs Modified by Focused Laser
PS-19	Shen Shing Wong (NTU, f93222057@ntu.edu.tw) Controlled Growth of Co Nanoparticle Assembly on Nano-Structured Template Al ₂ O ₃ /NiAl(100)
PS-20	Bin Rui Xu (NTU, f93222066@ntu.edu.tw) Superior Trapping Ability of One-Dimensional Defect Nanostructures
PS-21	Bo-Yao Wang (NTU, R90222040@ntu.edu.tw) Stabilized Perpendicular Magnetized Bct Fe Films by Exchange Bias Coupling
PS-22	Hong-Shi Kuo (IoP, AS, khs@phys.sinica.edu.tw) Field Emission through Single-Atom Tips
HEP/NP	
PS-23	Ngee-Pong Chang (CUNY, npccc@sci.ccny.cuny.edu) Tritium decay end-point measurement of tachyonic neutrino mass
PS-24	Yu-Min Zhao (Shanghai Jiao Tong U., ymzhao@sjtu.edu.cn)

Interdisciplinary Physics

- PS-25** **Chia-ling Chan** (NCU, marja_tw@yahoo.com.tw)
Structural Reversibility in Visco-elastic Coulomb Liquids
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- PS-26** **Yen-Hung Chen** (NCU, 942402003@cc.ncu.edu.tw)
Pulsed Laser Induced Microbubble Interaction: Jets Formation
and Fragmentation
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PP

- PS-27** **Zhongling Dai** (Dalian U. of Tech, daizhl@dlut.edu.cn)
Investigations of Ion Transport in Collisional Dual rf-biased
Sheaths and Ion Energy Distributions Bombarding a Dual rf-biased
Electrode
-
- PS-28** **Ming Mao** (Dalian U. of Tech, maoming@student.dlut.edu.cn)
A Self-consistent Two-dimensional Kinetic Simulation for
Low-pressure Planar Inductively Coupled Plasma
-
- PS-29** **Hong-Yu Chu** (NCU, chue@plasma.phy.ncu.edu.tw)
Interactions between Plasma Bubbles and Dust Density Waves in
Dusty Plasma Liquids
-
- PS-30** **Jiaqi Dong** (Southwestern Inst. of Physics, jiaqi@swip.ac.cn)
MHD Flow Layer Formation at Boundaries of Magnetic Islands in
Toroidal Plasmas
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SN/TM

- PS-31** **Ka-Lok Ng** (Asia U., klng@asia.edu.tw)
Reconstructing Protein-protein Interaction Networks from
Domain-domain Interactions
-
- PS-32** **Tajuddin Mohammed** (Osmania U., India, taj_osmania@yahoo.co.in)
On Torsional Vibrations of Infinite Hollow Poroelastic
Cylinders
-

SI

- PS-33** **Guanghong DING** (Fudan U., ghding@fudan.edu.cn)
Scientific Research on Acupoints with Interstitial Fluid Flow
and Mast Cells Function
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