

APCTP Scientific Activities

The Asia Pacific Center for Theoretical Physics (APCTP) was established in 1996 to promote activities in theoretical physics in the Asia-Pacific region. In 2016, a total of 56 academic activities were approved and 37 of them (46 individual programs) were held between January 2016 and August 2016. In total, there were 3,381 participants for these combined events. Further information regarding the participants and the activities is shown in Table 1 and Fig. 1. The planned activities of this year can be found in the attached calendar. The application period for academic activities in the 2017 fiscal year was closed on September 30, 2016, but we are accepting applications for category-4 activities (activities that are both in member countries and with MOU institutes) throughout the year.

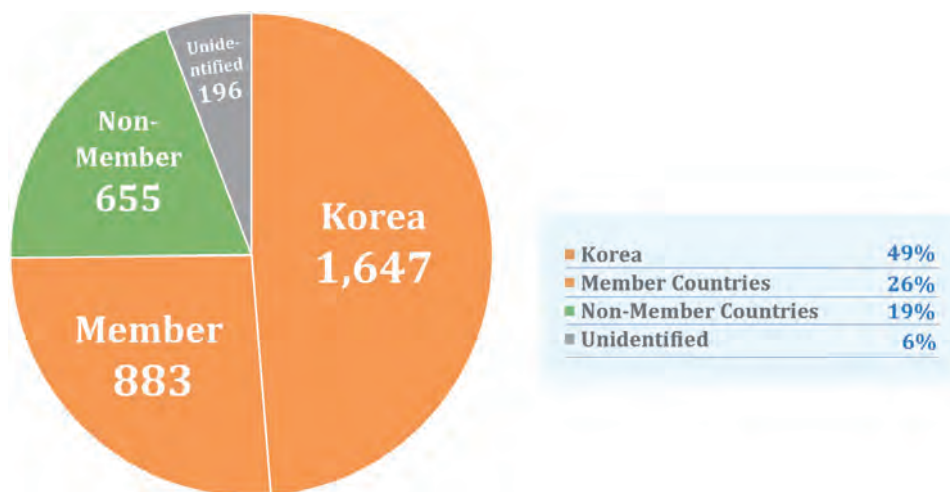


Fig. 1: Participants by Nationality and by Country Membership in APCTP.

Table 1: Scientific Activities from January to August, 2016.

CATEGORY NO.	TITLE	PERIOD	LOCATION	NUMBER OF PARTICIPANT				
				K	M/C	Non M/C	Unidentified	Total
F Focus Research Programs (22)	1 Pairing Interaction of High Temperature Superconductors (1st)	Jan. 18, 2016	APCTP Branch Office, Seoul, Korea	5	0	0	0	5
	2 Duality and Novel Geometry in M-Theory	Jan. 26-Feb. 4, 2016	APCTP Headquarters, Pohang, Korea	25	4	13	0	42
	3 Physics in Economic and Social System Winter Workshop (1st)	Feb. 22-23, 2016	Chosun University, Gwangju, Korea	27	3	0	0	30
	4 Pairing Interaction of High Temperature Superconductors (2nd)	Mar. 4, 2016	APCTP Branch Office, Seoul, Korea	9	0	0	0	9
	5 The 92nd StatPhys Monthly Meeting (1st)	Mar. 26, 2016	KIAS, Seoul, Korea	26	0	2	0	28
	6 The Origin and Evolution of the Universe (1st)	Apr. 1, 2016	KAIST, Daejeon, Korea	19	1	1	0	21
	7 The 21st Innovative Workshop on Soft/Bio Materials	Apr. 1, 2016	KAERI, Daejeon, Korea	36	0	2	0	38

F Focus Research Programs (22)	8	Pairing Interaction of High Temperature Superconductors (3rd)	Apr. 8, 2016	Yonsei University, Seoul, Korea	7	0	0	0	7
	9	Beyond Landau Fermi Liquid and BCS Superconductivity near Quantum Criticality / Real-Space Renormalization Group Approach (1st)	May 16-28, 2016	APCTP Headquarters, Pohang, Korea	35	2	3	0	40
	10	Pairing Interaction of High Temperature Superconductors (4th)	May 20, 2016	Hanyang University, Seoul, Korea	7	0	0	0	7
	11	The 93rd StatPhys Monthly Meeting (2nd)	May 21, 2016	KIAS, Seoul, Korea	25	0	0	0	25
	12	Introduction to Dark Matter Searches	May 21, 2016	Chung-Ang University, Seoul, Korea	22	0	0	0	22
	13	Heavy-Ion Collisions: Doorways from Quarks to Nuclei to Neutron Stars	May 26-27, 2016	Yonsei University, Seoul, Korea	31	2	0	0	33
	14	2016 FRP Workshop on String Theory and Cosmology (1st)	June 3, 2016	APCTP Branch Office, Seoul, Korea	17	1	0	0	18
	15	The 7th Discussion Meeting on Polymer Physics Theory	June 3-4, 2016	APCTP Headquarters, Pohang, Korea	12	0	0	0	12
	16	Beyond Landau Fermi Liquid and BCS Superconductivity near Quantum Criticality / Real-Space Renormalization Group Approach (2nd)	June 6-18, 2016	APCTP Headquarters, Pohang, Korea	19	4	4	0	27
	17	Pairing Interaction of High Temperature Superconductors (5th)	June 10, 2016	Incheon National University, Incheon, Korea	6	0	0	0	6
	18	The Origin and Evolution of the Universe (2nd)	June 17, 2016	APCTP Headquarters, Pohang, Korea	5	1	1	0	7
	19	Pairing Interaction of High Temperature Superconductors (6th)	July 11, 2016	APCTP Branch Office, Seoul, Korea	4	0	0	0	4
	20	The 128th Meeting of Numerical Simulation Working	Aug. 5, 2016	APCTP Branch Office, Seoul, Korea	8	0	0	0	8
	21	Social Simulation Workshop (2nd)	Aug. 18, 2016	NIMS, Daejeon, Korea	31	0	0	1	32
	22	Holography and Topology of Quantum Matter	Aug. 22-29, 2016	APCTP Headquarters, Pohang, Korea	24	6	6	0	36
A Academic Programs (24)	1	10th Asian Winter School on Strings, Particles and Cosmology	Jan. 6-16, 2016	OIST, Okinawa, Japan	21	64	6	0	91
	2	13th KIAS-APCTP Winter School on Statistical Physics	Jan. 18-22, 2016	POSTECH, Pohang, Korea	95	1	0	0	96
	3	20th APCTP Winter School on Fundamental Physics	Jan. 18-24, 2016	APCTP Headquarters, Pohang, Korea	49	5	1	0	55
	4	2016 Computational Neuroscience Winter School	Jan. 26-29, 2016	POSTECH, Pohang, Korea	47	1	0	0	48
	5	6th Asian Triangle Heavy Ion Conference	Feb. 15-19, 2016	IIC, New Delhi, India	4	108	0	0	112
	6	Quantum Materials Symposium 2016	Feb. 22-26, 2016	Muui Island, Korea	138	13	17	0	168
	7	Spring School on Superstring Theory and Related Topics	Mar. 10-18, 2016	ICTP, Trieste, Italy	7	26	85	0	118
	8	The 5th School of Mesoscopic Physics	May 26-28, 2016	Buyeo, Korea	70	0	0	0	70
	9	11th NetSci 2016	May 30- June 3, 2016	Seoul, Korea	116	18	0	188	322
	10	The Third New Physics Korea Institute (NPKI) Workshop : The Lesson from the First Results of Run2 of the LHC	June 12-17, 2016	Korea University, Seoul, Korea	23	7	32	7	69
	11	2016 AP Summer School and Workshop on Gravitation and Cosmology (APCTP-ITP-NCTS-YITP Joint Program)	June 19-26, 2016	Hunan Normal University, Hunan, China	6	69	1	0	76
	12	2016 Nuclear Physics School	June 20-24, 2016	APCTP Headquarters, Pohang, Korea	38	2	3	0	43

A Academic Programs (24)	13	2016 Summer School on Gravitational Waves and Numerical Relativity	June 26- July 1, 2016	KISTI&KASIT, Daejeon, Korea	79	1	0	0	80
	14	Computational Neuroscience 2016	July 2-7, 2016	International Convention Center, Jeju, Korea	109	56	146	0	311
	15	2016 Biophysics Summer School	July 4-6, 2016	APCTP Headquarters, Pohang, Korea	44	0	0	0	44
	16	International Workshop on Recent Progress on Superconductivity	July 6-8, 2016	Pyeongchang, Korea	72	13	4	0	89
	17	International Conference on Atomic Physics	July 24-29, 2016	COEX, Seoul, Korea	136	204	241	0	581
	18	APCTP-CTPU-GSDC 2016 LHC Physics Workshop @ Korea	Aug. 2~4, 2016	Konkuk University, Seoul, Korea	91	11	2	0	104
	19	IF-YITP GR+HEP+Cosmo International Symposium VI	Aug. 3~5, 2016	Naresuan University, Thailand	0	35	4	0	39
	20	International Workshop for String Theory and Cosmology 2016	Aug. 17~19, 2016	Hanyang University, Seoul, Korea	40	5	1	0	46
	21	International Workshop: The 10th APCTP-BLTP/ JINR-RCNP-RIKEN Joint Workshop on Nuclear and Hadronic Physics	Aug. 17-21, 2016	RIKEN, Wako, Japan	13	50	16	0	79
	22	Summer Institute 2016	Aug. 17-23, 2016	Xi-Tou, Nantou, Taiwan	10	68	13	0	91
	23	AAPPS-DACG RESCEU APCosPA Summer School on Cosmology and Particle Astrophysics	Aug. 24-28, 2016	Takayama, Gifu, Japan	3	79	11	0	93
	24	XLVI International Symposium on Multiparticle Dynamics (ISMD2016)	Aug. 29- Sep. 9, 2016	Jeju Island, Korea	36	23	40	0	99
Total (46 programs)					1,647	883	655	196	3,381

- K: Korean Participants
- M/C: Participants from APCTP Member Countries
Australia, Beijing, Canada, Japan, Kazakhstan, Lao PDR, Malaysia, Mongolia, Philippines, Singapore, Taipei, Thailand, Vietnam, India and Uzbekistan
- Non M/C: Participants from Non-Member Countries

2016 APCTP Scientific Activity Calendar



Focus Research Programs

I. PARTICLE PHYSICS

1. **Duality and Novel Geometry in M-theory**
(2016-01-26~02-04 / APCTP HQ, Pohang)
2. **Entanglement and Holography for quantum matter**
(2016-08-22~08-29 / APCTP HQ, Pohang)
3. **Liouville, Integrability and Branes (12)**
(2016-09-08~09-18 / APCTP HQ, Pohang)
4. **Hunting BSM Physics in the Era of High Energy LHC**
5. **Gravity and Cosmology**
6. **String Theory and Cosmology**

II. STATISTICAL PHYSICS / COMPLEX SYSTEMS

7. **STATPHYS MONTHLY MEETING**
8. **Physics in Economic and Social System**
9. **Innovative Workshop on Soft/Bio Materials**
10. **Discussion Meeting on Polymer Physics Theory**

III. ASTROPHYSICS / NUCLEAR PHYSICS

11. **Toward fundamental understanding of hadrons and nuclei**
 12. **The origin and evolution of the Universe**
 13. **Heavy-Ion collisions: doorways from quarks to nuclei to neutron stars**
- *JRG Workshop**
New perspectives on cosmology
 (2016-01-04~01-08/APCTP HQ, Pohang)

IV. CONDENSED MATTER PHYSICS

14. (1) **Beyond Landau Fermi liquid and BCS superconductivity near quantum Criticality**, (2) **Real-space renormalization group approach**
(2016-05-16~06-18, 06-06~06-18 / APCTP HQ, Pohang)
15. **Pairing interaction of high temperature superconductors**

Academic Programs

1. **13th KIAS-APCTP Winter School on Statistical Physics**
(2016-01-18~01-22 / POSTECH, Pohang)
2. **20th APCTP Winter School on Fundamental Physics**
(2016-01-18~01-24 / APCTP HQ, Pohang)
3. **Computational Neuroscience Winter School** (2016-01-25~01-29 / APCTP HQ, Pohang)
4. **Quantum Materials Symposium 2016** (2016-02-22~02-26 / Incheon)
5. **The 5th School of Mesoscopic Physics** (2016-05-26~05-28 / POSTECH, Pohang)
6. **11th NetSci 2016** (2016-05-30~06-03 / The K-Hotel, Seoul)
7. **The third New Physics Korea Institute (NPKI) workshop: The lesson from the first results of Run2 of the LHC** (2016-06-12~2016-06-17 / Korea Univ., Seoul)
8. **2016 Nuclear Physics School** (2016-06-20~06-24 / APCTP HQ, Pohang)
9. **2016 Summer School and Workshop on Numerical Relativity and Gravitational Waves** (2016-06-26~07-01 / KAIST, Daejeon)
10. **Computational Neuroscience 2016 (CNS 2016)**
(2016-07-02~07-06 / Int'l Convention Center, Jeju)
11. **Biophysics School** (2016-07-04~07-06 / APCTP HQ, Pohang)
12. **International Symposium on Recent Progress of Superconductivity**
(2016-07-06~07-08 / Yongpyong)
13. **International Conference on Atomic Physics** (2016-07-24~07-29 / COEX, Seoul)
14. **APCTP-CTPU-GSDC 2016 LHC Physics Workshop @Korea**
(2016-08-02~08-04 / Konkuk Univ., Seoul)
15. **International Workshop for String theory and Cosmology 2016**
(2016-08-17~08-19 / Hanyang Univ., Seoul)
16. **The 46th International Symposium on Multiparticle Dynamics (ISMD2016)**
(2016-08-29~09-02 / KAIST, Seoul)
17. **Young Computational Neuroscience: All about Dynamic Brain 2016**
(2016-10-04/ Int'l Convention Center, Jeju)
18. **International Workshop on Frontiers of XFEL Science**
(2016-12-07~12-09 / POSTECH, Pohang)
19. **APCTP-ICTP Joint Workshop: Quantitative Life Sciences**
(2016-11-21~11-24 / APCTP HQ, Pohang)
20. **8th IACS-APCTP Joint Conference on Emergent Phenomena in Novel Oxide Materials and Low Dimensional Systems** (2016-12-15~12-17 / APCTP HQ, Pohang)
21. **10th Asian Winter School on Strings, Particles and Cosmology**
(2016-01-11~01-20 / Kusatsu, Japan)
22. **6th Asian Triangular Heavy Ion Collisions**
(2016-02-15~02-19 / India Int'l Centre, New Delhi, India)
23. **Spring School on Superstring Theory and Related Topics**
(2016-03-10~03-18 / ICTP, Trieste, Italy)

INTERNATIONAL

24. **2016 AP Summer School and Conference on Gravitation and Cosmology (APCTP-ITP-NCTS-YITP Joint Program)**
(2016-06-20~07-01 / Hunan Normal Univ., Changsha, China)
25. **International Conference on Frontiers of Science on "Quantum Cosmological Physics"** (2016-07-29~07-31 / Beijing, China)
26. **IF-YITP GR+HEP+Cosmo International Symposium VI**
(2016-08-03~08-05 / Naresuan Univ., Thailand)
27. **10th APCTP-BLTP JINR-RCNP Joint Workshop at RIKEN**
(2016-08-17~08-21 / RIKEN, Wako City, Japan)
28. **Summer Institute 2016 (Workshop/Summer School on Particle Physics and Cosmology)** (2016-08-17~08-23 / Sun-Moon Lake, Taiwan)
29. **AAPPS DACG RESCEU APCosPA Summer School on Cosmology and Particle Astrophysics** (2016-08-24~08-28 / Takayama, Japan)
30. **22nd Vietnam School of Physics** (2016-09-01~09-12 / Quy Nhon, Vietnam)
31. **New Trends in Low-Dimensional Physics: Quantum Integrability and Applications** (2016-09-01~09-15 / IOP, CAS, Beijing, China)
32. **International Conference on Highly Frustrated Magnetism (HFM2016)**
(2016-09-07~09-11 / National Taiwan Univ., Taipei, Taiwan)
33. **International Conference on Recent Advances in Photovoltaics: From Basic Research to Novel Materials and Devices** (2016-10-03~10-08 / Bukhara, Uzbekistan)
34. **The 8th APCTP Workshop on Multiferroics**
(2016-10-07~10-10 / Shanghai Univ., Shanghai, China)
35. **Hanoi International Activity "Gravitation and the Universe"**
(2016-10-29~11-01 / Hanoi, Vietnam)
36. **19th Asian Workshop on First-Principles Electronic Structure Calculations (ASIAN-19)** (2016-10-31~11-02 / Hsinchu, Taiwan)
37. **The 9th Asian Symposium on Intense Laser Science**
(2016-11-06~11-10 / NinhBinh City, Vietnam)
38. **The 9th International Conference on Photonics and Applications**
(2016-11-06 ~ 11-10 / NinhBinh City, Vietnam)
39. **The 8th International Workshop on Advanced Materials Science and Nanotechnology (IWAMSN 2016)**
(2016-11-08 ~ 11-12 / Halong City, Vietnam)
40. **13th International Symposium on Cosmology and Particle Astrophysics**
(2016-11-28 ~ 12-02 / The University of Sydney, Sydney, Australia)
41. **Asia-Pacific Physics Conference 13 (APPC-13)**
(2016-12-04~12-08 / Brisbane Convention and Exhibition Centre, Australia)