International Workshop on New Physics at the Low Energy Scales

NEPLES-2019 GUIDE
INTERNATIONAL WORKSHOP ON
NEW PHYSICS
AT THE LOW ENERGY SCALES
NEPLES-2019

Focus of the workshop is on new light BSM particles and composite states, new dynamics and new experimental techniques for the low energy processes. The goal is to review recent developments in the field, present new ideas and discuss perspectives.

TOPICS
- axions, axion-like particles
- light dark scalars
- sterile neutrinos and dark fermions
- dark photons
- light gravitinos and string relics
- model building for light sectors
- mediators and portals
- flavor physics and hidden sector
- neutrino mass and mixing
- new long range forces
- composite states and composite systems
- coherent scattering and coherent effects
- physics of relic neutrinos
- dark matter and dark energy
- dark sector and gravitational waves
- implications to laboratory experiments
- astrophysics and Cosmology

ORGANIZERS
Eung Jin Chun  KIAS, Seoul
Alejandro Ibarra  Munich, Tech. U. & KIAS, Seoul
Pyungwon Ko  KIAS, Seoul
Alexei Smirnov  MPIK, Heidelberg & KIAS, Seoul

SCIENTIFIC SECRETARY
Seokhoon Yun  KIAS, Seoul

SEPT. 23 - 27, 2019

KIAS
Korea Institute for Advanced Study
Seoul, Korea

VENUE
Auditorium (1F)

ADVISORY COMMITTEE
Kevork Abazajian  UC, Irvine
Rouven Essig  VITP, Stony Brook
Belen Gavela  IFT, U. Autonoma Madrid
Carlo Giunti  INFN, Turin
Joerg Jaeckel  Heidelberg U.
Sin Kyu Kang  Seoul Tech
Jihn E. Kim  IBS, Daejeon &...
Soo Bong Kim  Seoul Natl. U.
Young Duk Kim  IBS, Daejeon
Hye-Sung Lee  KAIST

Maxim Pospelov  Perimeter Inst, Theor. Phys. &...
Andreas Ringwald  DESY
Adam Ritz  Victoria U.
Thomas Schwetz  IKP - KIT, Karlsruhe
Pierre Sikivie  Florida U.
Jesse Thaler  MIT, Cambridge, CTP
Tomer Volansky  Tel Aviv U.

Please contact aecyoon@kias.re.kr

events.kias.re.kr/h/NEPLES2019
<table>
<thead>
<tr>
<th>Time</th>
<th>Sep 23 (Mon)</th>
<th>Sep 24 (Tue)</th>
<th>Sep 25 (Wed)</th>
<th>Sep 26 (Thu)</th>
<th>Sep 27 (Fri)</th>
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</thead>
<tbody>
<tr>
<td>9:00-10:30</td>
<td>Opening (15min)</td>
<td>Masahito Yamazaki (30min)</td>
<td>Yoomin Oh (30min)</td>
<td>Carlos Arguelles (30min)</td>
<td>Shao-Feng Ge (25min)</td>
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<td></td>
<td>Jihn E. Kim (30min)</td>
<td>Fuminobu Takahashi (30min)</td>
<td>Carlo Giunti (30min)</td>
<td>Enrico Bertuzzo (30min)</td>
<td>Joern Kersten (25min)</td>
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<td>Tao Liu (30min)</td>
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<td>Seodong Shin (20min)</td>
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<td>10:30-11:00</td>
<td>Coffee break</td>
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<td>11:00-12:30</td>
<td>Nicholas Rodd (25min)</td>
<td>Julian Munoz (30min)</td>
<td>Hisakazu Minakata (20min)</td>
<td>Basudeb Dasgupta (30min)</td>
<td>Victor Flambaum (30min)</td>
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<td></td>
<td>Ariel Arza (25min)</td>
<td>Yong Tang (20min)</td>
<td>Changhyun Ha (25min)</td>
<td>Verdant Brdar (20min)</td>
<td>Xun-Jie Xu (30min)</td>
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<td></td>
<td>Hyesung Lee (20min)</td>
<td>Elisa Todarello (20min)</td>
<td>Marzio De Napoli (25min)</td>
<td>Sin Kyu Kang (20min)</td>
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<td>14:00-15:30</td>
<td>Sergio Gonzalez Sevilla (30min)</td>
<td>Osamu Seto (20min)</td>
<td>Yvon Y.Y. Wong (30min)</td>
<td>Young Duk Kim (30min)</td>
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<td>Kevork Abazajian (30min)</td>
<td>Sunghoon Jung (20min)</td>
<td>Alfredo Cocco (30min)</td>
<td>C. Rott (30min)</td>
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<td>15:30-16:00</td>
<td>Coffee Break</td>
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<td>16:00-17:30</td>
<td>Soo-Bong Kim (30min)</td>
<td>Zurab Berezhiani (30min)</td>
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<td>Evgeny Akhmedov (30min)</td>
<td>Concluding Remarks</td>
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<td></td>
<td>Patrick Huber (30min)</td>
<td>J. Yoo (30min)</td>
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<td>Dmitry V. Naumov (30min)</td>
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<td>17:40~</td>
<td>Reception Dinner</td>
<td>Poster Session</td>
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<td>Kenji Kadota (20min)</td>
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</tbody>
</table>
1. VENUE: KIAS 1F AUDITORIUM

2. MEAL: Breakfast and Lunch will be served

[Breakfast] 8:30am every morning / 1F Lobby
[Lunch] 12:30~14:00pm / 2F Cafeteria (Union Bldg.)

*Lunch coupon will be distributed at the registration desk*
3. Banquet

When?
Sep 25 (Wed) from 5:50pm

Where?
’Sanchon’
When you take a taxi to go to the banquet venue, please show this guide to the driver.

안녕하세요, 이 분을 ‘산촌’으로 데려다주세요.

주소: 서울특별시 종로구 인사동길 30-13
10 Must-visit Tourist Spots in Seoul
1. The Five Royal Palaces in Seoul

The five royal palaces in Seoul (Gyeongbokgung Palace, Changdeokgung Palace, Deoksugung Palace, Changgyeonggung Palace, and Gyeonghuigung Palace) are probably the best places to see and experience the history, tradition, culture, and beauty of Korea all in one place. Of the five palaces, Gyeongbokgung Palace was the official residence of the kings of Joseon; Changdeokgung Palace is listed as a UNESCO World Heritage Site; Deoksugung Palace combines the elegant beauty of Korean architecture and refined beauty of Western architecture; Changgyeonggung Palace is known for its practical beauty; and Gyeonghuigung Palace is simple and cozy.

Gyeongbokgung Palace: 161, Sajik-ro, Jongno-gu, Seoul / +82-2-3700-3900-1
Changdeokgung Palace: 99, Yukgol-ro, Jongno-gu, Seoul / +82-2-3668-2300
Deoksugung Palace: 99, Sejongno-ro, Jung-gu, Seoul / +82-2-771-9955
Changgyeonggung Palace: 185, Changgyeonggung-ro, Jongno-gu, Seoul / +82-2-762-4868-9
Gyeonghuigung Palace: 55, Saeunno-ro, Jongno-gu, Seoul / +82-2-724-0274
Customer Service Center, Cultural Heritage Administration: +82-1600-0064

2. Ikseon-dong

When you walk into the alleys of Ikseon-dong, you will find some of the least expected places. Among the array of small and simple traditional Korean houses called hanok, you will see cafes, restaurants, handcrafted beer bars, and vintage stores. These are some of the most popular places in Seoul to go on a date, and thousands of people take photos of these places and post them on SNS.

Ikseon-dong, Jongno-gu, Seoul
Jongno-gu Office: +82-2-2148-1114
3. N Seoul Tower

N Seoul Tower has an observation deck with an altitude of 236.7m. It was originally a transmission tower built in 1969, but it was transformed into an observation deck in 1980 for visitors. At the highest level of the N Seoul Tower, there is a rotating restaurant where you can dine and enjoy the view at the same time.

- 105, Namdaemun-gil, Yangzan-gu, Seoul
- N Seoul Tower: +82-2-3455-9277

4. Dongdaemun Design Plaza

Dongdaemun Design Plaza serves as a hub for exhibitions, fashion shows, conferences, and other domestic and international events. The building features curved cladding panels and a mega-sized roof that were made possible by a three-dimensional molding process. Dongdaemun Design Plaza made the New York Times' "52 Places to Go in 2015" list. There are lots to see in the area. Dongdaemun Market in particular has been one of the most popular places to visit and shop thanks to thousands of shops selling quality products such as fashion wear and clothing materials at reasonable prices.

- 281, Bulji-ro, Jung-gu, Seoul
- Dongdaemun Design Plaza: +82-2-2153-0000
5. Myeong-Dong Street

Myeong-dong is one of the hottest shopping districts and perhaps the most bustling place in Seoul. There are brand shops, select shops, and stores selling the bonded clothing, in addition to a number of historical places such as Myeongdong Cathedral, a Gothic-style building that serves as a symbol of Korean Catholicism, and Myeongdong Theater, which was formerly called the Myeongdong National Theater of Korea before its restoration.

📍 Myeong-dong, Jung-gu, Seoul
📞 Seoul City Hall: +82-2-120

6. Hongik University Street

"Hongik University Street" is perhaps the hottest place in Seoul especially among young people seeking romance, art, underground culture, and unique fashion. There are great cafes, small galleries, accessory shops, fashion shops, bars with live music, clubs, art markets, and eateries.

📍 160, Yanghwa-ro, Mapo-gu, Seoul
📞 Tourism Division, Mapo-gu Office: +82-2-3153-8650
7. Lotte World & Lotte World Tower
   : One of the best recreation complexes in Seoul

240, Olympic-ro, Songpa-gu, Seoul
Lotte World: +82-1661-2000

8. Coex

COEX has excellent and convenient facilities, exhibition halls, performance halls, and other spaces. After being designated as a Gangnam MICE Special Tourist Zone in 2014 and opening the 5N TOWN in 2015, COEX is fast becoming a global platform for culture and business. There is also the Star eld COEX Mall which was remodeled in 2014 to house a multiplex, theme aquarium, library, fashion shops, and beauty shops.

513, Yeongdong-daero, Gangnam-gu, Seoul
COEX: +82-2-6000-0114
9. Itaewon Special Tourist Zone

Itaewon was the first designated special tourist zone in Seoul. In addition to an array of clothing, shoe, and bag stores as well as restaurants and tourist hotels, there are lots to see and enjoy at the Antique Furniture Street and World Food Street. Gyeongnidan-gil Road between the Armed Forces Financial Management Corps and Grand Hyatt Hotel is particularly popular among tourists because of the unique and interesting restaurants and cafes on either side of the road.

- Hannam-dong and Itaewon-dong, Yongsan-gu, Seoul
- Itaewon Special Tourist Zone Association: +82-2-797-7319

10. Seoulllo 7017

"Seoulllo 7017" was named as such to infer 1970 when the Seoul Station Overpass was built and 2017 when the overpass was transformed into Korea’s first overpass pedestrian walkway. In addition to eateries where you can eat, drink, and have fun, there are gardens and the Rose Stage that combine ecology and culture. There is also a Tourist Information Center that can help you to find your way around.

- #32, Cheonggye-ro, Jung-gu, Seoul
- Seoul City Hall: +82-2-120
Hope you enjoy NEPLES – 2019!