

## ExHIC meeting 1st circular

Dear Colleagues,

This is the first announcement of a molecule-term workshop,  
Exotic hadrons from high energy collisions (ExHIC 2016)  
March 23 (Wed) to April 6 (Wed), 2016  
Yukawa Institute for Theoretical Physics (YITP), Kyoto University,  
Japan.  
[http://www2.yukawa.kyoto-u.ac.jp/~yipqs.project/entry\\_e.php?id=321](http://www2.yukawa.kyoto-u.ac.jp/~yipqs.project/entry_e.php?id=321)

### \* Description

The structure of exotic hadrons has drawn much attention by the recent observations of many unconventional states at high energy facilities, such as the XYZ states at B-factories and the pentaquark candidate  $P_c$  at LHCb. While these findings open an opportunity to unveil the new form of the strongly interacting matter, i.e., multiquark states and hadronic molecules, a method to clearly pin down the structure of hadrons has been called for.

In 2010, we had a related molecule-type workshop at YITP, "Exotics from heavy ion collisions". During the workshop, we launched the "ExHIC collaboration" among the participants, and showed that the yield of an exotic hadron in heavy ion collisions is typically an order of magnitude suppressed when it is a compact multiquark state and a factor of 2 or more enhanced when it is a loosely bound hadronic molecule. An advantage of the high-energy inclusive experiments is a huge number of produced hadrons, including those with charm and bottom flavors. This is not restricted to the heavy ion collisions, but also to the electron-positron collisions and the hadron-hadron/hadron-nucleus collisions. Moreover, the extraction of the two-hadron correlation in the final state interaction is emerging as a new tool to study the hadron interactions.

In this molecule-type workshop, we discuss the structure of exotic hadrons and two-hadron correlations in wider range of high-energy experiments. We invite leading experimentalists in this field and hold an intensive discussion session during March 23-25. We investigate the production mechanisms of exotic hadrons in high energy collisions and establish the method to efficiently determine the hadronic interactions from the two-hadron correlations. The present workshop will deepen the understanding of the exotic hadrons and hadron interactions through the synergy of theory and experiments.

### \* Schedule

Mar. 23 (Wed) - Mar. 25 (Fri): Intensive workshop  
Mar. 28 (Mon) - Apr. 6 (Wed): Seminars and discussions

\* Venue

All the scientific activity at the workshop will be held at Yukawa Institute of Theoretical Physics (YITP), Kyoto University. Desks with internet access will be provided to participants.

\* Travel

You can find information on YITP website:

<http://www.yukawa.kyoto-u.ac.jp/english/contents/guide/map.html>

\* Registration

Please fill in the registration form:

[http://www2.yukawa.kyoto-u.ac.jp/~yipqs.project/form\\_e.php?id=321](http://www2.yukawa.kyoto-u.ac.jp/~yipqs.project/form_e.php?id=321)

\* Accommodation

We ask you to arrange the accommodation by yourself.

You can find a list of hotels in Kyoto:

<http://www.yukawa.kyoto-u.ac.jp/english/contents/guide/hotels.html>

If you have trouble in the hotel reservation, please consult [hyodo\[at\]yukawa.kyoto-u.ac.jp](mailto:hyodo@yukawa.kyoto-u.ac.jp).

We have booked a limited number of rooms in the Kitashirakawa Guest House.

Priority is given to students and long-term participants.

The guest house arrangement can be requested in the registration form.

Because the Guest House does not have a reception, late check-in/check-in in weekends will cause additional procedures.

\* Contact

If you have any questions, please contact us at [hyodo\[at\]yukawa.kyoto-u.ac.jp](mailto:hyodo@yukawa.kyoto-u.ac.jp)

\* Organizers

Su Hounng Lee (Yonsei)

Tetsuo Hyodo (YITP)