Launch new collaborative efforts

- Explore a Chinese contribution to a Decay Station – This device could move between laboratories and conduct experiments at HIAF. Identify contact people on both sides and work to apply for financial support from China.

  (to be explored, very possible, need a joint-team to take care, xxx-IMP; PKU…..) ("official" agreement required?)
- A solid collaboration already exists on TPC development. We encourage future collaboration and mutual participation in TPC experiments.

  (to be strengthened, very important
  X.D.Tang-IMP, Q.T.Li-PKU, F.Lu-SINAP…; US-side……)
- New collaboration on "Charge Exchange reactions", such as in exchange of detectors and manpower, with the needs of beams and theoretical support.

  (team to team)
- Continuation of the international Atomic Mass Evaluation (AME) collaboration activities under the leadership of Institute of Modern Physics (CAS, China) are critical for the future mass measurement programs at the premier RIB facilities. Continuing support by the community and funding agencies is imperative for securing the future of these activities.

  (ongoing)
- Development and test of detectors
- EDM collaboration in place
- EOS collaboration in place
- LQCD collaboration is being formed
- Propose transnational topical collaborations on intersection of structure and reaction theory (funding source unclear)
- Coordinate proposal submission to facilities in US and China

  (need pioneering personal exchanges as step-stones ?)

- Coordinate proposal submission to funding agencies in US and China

Meetings

- CUSTIPEN workshops crucial
  (ongoing)
- The time is right to organize an "Experts Meeting" on fast beam diagnostics, gas stopping, LASER spectroscopy and ionization, magnet, and target technology. A goal would be to have one or two of these meetings in the next few years.
  (urgently needed, accountable contact persons should be assigned)
- Hold conference(s) on intersections of structure and reaction theory, sponsored in part by labs such as IMP.
  (see below the TA)

Theory program

- Build up theory infrastructure in China alongside experimental infrastructure.
- Create national theory effort around HIAF (HIAF-TA)
- Build up low-energy reaction theory, important for current and planned Chinese experimental program, in terms of capability, visibility, and status.
- It is recommended to include theoretical predictions into the nuclear data activities in order to provide better consistency and credibility to the evaluated nuclear data.
  (Very important, to be explored in an organized manner)

Proposal (encouragement):

Establish a (HIAF?HIRFL?)-TA at IMP, starting from LE(RIB+HI?) physics with experiment- and facility-orientation

* Identify some stable funding by IMP or from big-projects, then apply more funds from agencies.
* Identify chief-scientists and setup a steering committee and a board.
* set up a number of joint post-doc positions to be applied nation-wide, including the support for US-based postdocs to work in China for some period.
* set up workshop and school programs for the mostly concerned topics.
* Identify a university /institute to apply for a new CSC fellow project for theory.
* Identify a university /institute to apply for a new CSC scholarship project (easier).

……

Take advantage of CSC-based programs

- FRIB-CSC Fellow program very successful. Explore expanding this program by including Chinese institutions besides PKU, IMP (will require new proposal, PI?)
  (see above TA)
- In order to facilitate collaborative research projects in the physics of unstable nuclei, we suggest the establishment of a FRIB-CSC program for Scholars to embed Chinese Scientists and Faculty in research groups in the U.S. This program would mirror the FRIBCSC Fellow program but be targeted at established

researchers in China rather than at senior graduate students and new postdocs.

(see above TA)

- Encourage excellent nuclear theory students for apply for CSC graduate student funds to study in US.

(existing)

Improve Communications

- In order to improve communication between US and China research efforts in the physics of unstable nuclei, we suggest the creation of an additional set of web pages within the us-china-rib.org website that lists the capabilities, plans, manpower and resource requests, and contact information of research groups in both the US and China.

(attach to TA?)

- Invitations for individual visits to Chinese and US Institutes should be initiated. The Us-China Steering Committee should make recommendations for possible visits.

(according to the task force for each initiative?)

Education & Training

- Co-advising PhD students from US and Chinese institutions.
- The 1st TALENT in China will be held in Henan Normal University in 2018. Important to have Chinese lecturers. FRIB-CSC postdoc fellows could teach as assistants. It is important to ensure the TALENT2018 is successful so that TALENT in China can be continued.

(ongoing, very important) (must be successful; should have no financial problem…)

(each should have its focus)

- Run a TALENT course in China on reaction theory.
- Encourage a Talent program on heavy ion reactions.
- Since many research groups are small and fragmented, course(s) of general interests are not available in many institutions. Therefore, we should not only promote specialized courses like TALENT, but also basic courses.
- Send US-based postdocs to China, keeping connections back in US, especially in topics with strong needs (see above TA)

Next

3rd China-US meeting ? Where and when?

To be explored with full effort

Cooperation on facilities/devices;

Theory Alliance

Talent Courses

Students-fellows-scholars

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