

Report on the JUSTIPEN supported trip by Alex Brown in December 2008.

1 Activities at RCNP (Osaka), December 11-12

- December 11: Gave a two hour lecture on “DIY applications of the NuShell CI program”.
- December 12: Gave a colloquium on “Shell Model Configuration Mixing: Pushing the Limits of Theory and Computation”.
- Met with Dr. Takashi Nakano about his recent results for penta-quark type resonance.
- Met with Dr. Atsuko Odahara from the Univ. of Osaka on recent work of their group on beta decay of polarized nuclei ^{28}Na and ^{29}Na at TRIUMF. Also meet with her students, Ken-ichiro Kura and Kunihiko Tajiri. Carried out calculations for the beta decay of ^{28}Na .
- Met with Prof. Isao Tanihata on his work tensor correlations in nuclei.
- Met with Prof. Fujita’s group on the recent work on high-resolution proton scattering to isoscalar and isovector M1 states in nuclei with $N=Z$.
- Emails from Prof. Tanihata and Dr. Odahara are attached below.

2 Activities at RIKEN (Tokyo), December 15-16

- Met with Dr. Kimiko Sekiguchi on her work the exploring three-nucleon forces with Nucleon-Deuteron Scattering.
- Met with a student Shoko Konno on her experiment on the $B(E2)$ in ^{74}Ni with results compared to our calculations.
- Met with Dr. Yuichi Ichikawa about his experiment on the beta decay of ^{24}Si where the absolute branchings to the bound 1^+ states in ^{24}Al were measured for the first time. We discussed the issue of mirror-asymmetry in the beta decay of ^{24}Si and ^{24}Ne . I carried out calculations for these beta decays. Will join in a paper for this experiment.
- Met with Carlo Barbieri on the isospin dependence of fragmentation of the spectroscopic strengths.
- Yutaka Utsuno came from the Japan Atomic Energy Agency (JAEA) group in Tokai to discuss his recent results for CI calculations in the region of ^{42}Si .
- Met briefly with Toshimi Suda about how to interpret the data they expect from electron scattering from short-lived exotic nuclei using a novel internal target (SCRIT).

- When I planned my trip I had scheduled to meet with Taka Otsuka on December 15 or 16. But latter he found he was not able to meet with me on those dates. Instead Taka came to MSU on Nov 14th.
- Email from Dr. Ichikawa is below

3 Emails

3.1 From Prof. Tanihata

Hi Alex;

Glad to hear that you had good weekend. It was really a great occasion that you could visit us. Many students thanks me for arrangement but those actually go to you, many thanks.

Hope you have good remaining days in Japan.
regards; Isao

3.2 From Dr. Odahara

Dear Prof. Alex Brown,

I am Atsuko Odahara at Osaka University. Thank you very much for discussing with us in the morning of Friday 12th. We could have many and important information from you. And also I am very thankful for your lecture how to use NuShell and your seminar on last Thursday and Friday.

We would like to ask you to give us your ppt or pdf file which you showed us when you had lecture on 11th Thursday. This could remind us your lecture. Thank you very much in advance.

Atsuko ODAHARA

3.3 From Dr. Ishikawa

Dear Brown-san,

Thank you for today's discussion and your comments. I saw your calculations. I feel wonderful for the reproducibility of the asymmetry.

Best Regards, Yuichi

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