1 Monday June 3

1.1 morning session (chair: Witek Nazarewicz)

8:30 Registration

8:50 (10) Thomas Glasmacher - Welcome

9:00 (30) M. Pfutzner, Two-Proton Radioactivity - Status Report

9:30 (30) R. J. Charity, Single and two-proton emission from states in $^{11,12}O$ and $^{10,11,12}N$

10:00 (15) K. W. Brown, Two-Proton decay in the sd-shell

10:15 (15) S. M. Wang, Study of the two-proton radioactivity within the Gamow coupled-channel approach

10:30 coffee break

11:00 (30) B. Blank, Two-proton and $\beta$-delayed proton emission from proton-rich nuclei

11:30 (15) Alex Brown, Configuration Interactions Calculations for Two-Proton Decay

11:45 (15) Tomohiro Oishi, Proton emission as a tool to investigate hypernuclei

12:00 (15) W. R. Plass, Multiple-reflection time-of-flight mass spectrometry of neutron-deficient nuclides in the vicinity of $^{100}Sn$ and at the $N=82$ shell closure

12:15 lunch

1.2 afternoon session (chair: Bertram Blank)

2:00 (30) I. Mukha, Deep Excursion beyond the Proton Drip Line along Argon and Chlorine Isotope Chains
2:15 (15) A. A. Ciemny, *Exotic decay modes of light silicon isotopes*

2:30 (15) D. Kostyleva, *End of nuclear landscape foreseen for light argon and chlorine isotopes*

3:00 coffee break

3:30 (30) J. Park, *Proton dripline near the doubly magic $^{100}$Sn: current status and outlook*

4:00 (30) D. Seweryniak, *Recent studies of proton and $\alpha$ emission near $^{100}$Sn at ATLAS*

4:30 (15) Y. Xiao, *Search for $\alpha$ decay of $^{104}$Te with a novel recoil-decay scintillation detector*

4:45 (15) K. Auranen, *Proton decay of $^{108}$I and its significance for the termination of the astrophysical rp-process*

5:00 (15) Zhuang Ge, *Mass measurements of N=Z nuclei upto $^{100}$Sn at the Rare-RI Ring in RIKEN*

5:30 Welcome reception

## 2 Tuesday June 4

### 2.1 morning session (chair: Zach Meisel)

9:00 (30) G. V. Rogachev, *Recent studies of proton-rich nuclei using active target at the Cyclotron Institute*


10:00 (15) N. Sokolowska, $\beta$ - delayed proton emission from $^{11}$Be

10:15 (15) J. S. Randhawa, *Direct observation of exotic decay modes in $^{11}$Be and other systems using AT-TPC*

10:30 coffee break

11:00 (30) Hans O. U. Fynbo, *Delayed particle emission from light nuclei*

11:30 (15) S. Misicu, *Proton emission in ultra-intense laser fields*
11:45 (15) J. D. Lantis, *Charge radii of proton-rich Ca isotopes*

12:00 (15) R. C. Powel, *Charge Radii of Mirror Nuclei* $^{36}\text{Ca}-^{36}\text{S}$ and Neutron Equation of State

12:15 lunch

### 2.2 afternoon session (chair: Robert Charity)

2:00 (30) Lidia S. Ferreira, *Theoretical interpretation of proton radioactivity: current status*

2:30 (30) L. J. Sun, *Exotic Decays of Extremely Proton-rich Nuclei in sd-shell and Related Topics*

3:00 coffee break

3:30 (30) R. Kanungo, *Probing shell evolution and nuclear force at the proton drip-line*

4:00 (15) R. D. Page, *Discoveries of new cases of proton emission with sub-microsecond half-lives*

4:15 (15) A. Magilligan, *New Isospin-Breaking “USD” Hamiltonians and their Predictions for Proton-Rich*

4:30 (15) I. N. Izosimov, *Fine Structure of Beta-Decay Strength Function $S/\beta(E)$ Anisotropy of Isovector Nuclear Dencity Component Oscillartions in Deformed Nuclei*

4:45 (15) M. A. Alaqeel, *Decay Spectroscopy of the Proton Rich Isotopes $^{176,177}\text{Tl}$*

5:00 (15) G. Perdikakis, *Nucleosynthesis via neutrino-p process and experimental efforts on measuring key nuclear reactions*

### 3 Wednesday June 5

#### 3.1 morning session (chair: Hans Fynbo)

9:00 (30) A. Kankainen, *Studies of proton-rich nuclei in the $A \approx 30$ region for nuclear astrophysics*

9:30 (30) G. Lotay, *Spectroscopic Studies for Explosive Nuclear Astrophysics*
10:00 (30) Z. Meisel, *The Influence of Proton-Rich Nuclei on the Most Neutron-rich Matter in the Universe*

10:30 coffee break

11:00 (30) R. Longland, *Monte Carlo Reaction Rate Uncertainties*

11:30 (15) T. Poxon-Pearson, *Transfer Reactions as a Probe for Astrophysical Proton Capture*

11:45 (15) K. A. Chipps, *Proton Decay of the 6.15 MeV Level in $^{18}$Ne*

12:00 (15) Ushasi Datta, *Study of exotic decay of the nuclei around proton drip line at A $\approx 115$*

12:15 lunch

### 3.2 afternoon session (chair: Grigory Rogachev)

2:00 (30) R. B. Wiringa, *Charge-Independence Breaking in Light Nuclei*

2:30 (30) Wojciech Satula, *Charge-dependent DFT for $N \approx Z$ nuclei*

3:00 (15) N. A. Smirnova, *Isospin-symmetry breaking correction to Fermi $0^+ \rightarrow 0^+ \beta$-decay*

3:15 coffee break

3:30 FRIB tour

### 4 Thursday June 6

#### 4.1 morning session (chair: Lidia Ferreira)

9:00 (30) W. Nazarewicz, *Quantified nuclear density functional theory*

9:30 (30) D. T. Joss, *Shapes, Structures and Radioactive Decay Modes in Heavy Proton-Unbound Nuclei*
10:00 (30) C. Wrede, *Studies of explosive nucleosynthesis using $\beta^+$ decay experiments*

10:30 coffee break

11:00 (30) H. Suzuki, *Discovery of $^{72}$Rb and recent proton-rich RI-beam production at RIBF*

11:30 (15) D. E. M. Hoff, *$^{73}$Sr $\beta$-delayed proton emission and the structure of $^{73}$Rb*

11:45 (15) M. Friedman, *Low-Background Measurement of Low-Energy $^{23}$Al $\beta$-delayed Protons as a Probe for $^{22}$Na Destruction Rates in Novae*

12:00 (15) T. Budner, *Constraining $^{30}P(p,g)^{31}S$ to understand nova nucleosynthesis by measuring $\beta$-delayed protons*

12:15 lunch

2:00 meet for the bus to Frederik Meijer Gardens and Sculpture Park in Grand Rapids

6:30 Conference dinner

8:00 Michael Thoennessen, *Stories about Elements, Isotopes and Nuclides*

10:00 Return to MSU

## 5  Friday June 7

### 5.1  morning session (chair: Dean Lee)

9:00 (30) P. Arumugam, *Triaxiality and residual neutron-proton interaction in proton emitters*

9:30 (15) B. Longfellow, *Spectroscopy and lifetime measurements near the proton drip line: $^{26,27,28}P$*

9:45 (15) BirBikram Singh, *Effects of deformations and orientations on one proton radioactivity in proton rich nuclides*
10:10 (15) V. Araujo-Escalona, *WISArD: Weak Interaction Studies with $^{32}$Ar Decay*

10:15 (15) A. K. Nurmukhanbetova, *$^{21}$Ne structure in the $^{17}$O($\alpha$,$\alpha$) resonance reaction*

10:30 coffee break

11:00 (15) Louis Wagner, *Proton capture reactions with rare isotope beams for X-ray bursts*

11:15 (15) I. Sreeja, *Half-life formula for one and two-proton emitters*

11:30 (15) H. Tann, *JUROGAM 3 at MARA- studying proton-rich nuclei by employing in-beam spectroscopy*

11:45 (15) C. J. Appleton, *Advanced Implantation Detector Array (AIDA) for decay measurements of exotic nuclei*

12:00 (15) Mandeep Kaur, *Investigating N/Z effects in the decay of compound nuclei with mass $A = 60$*

12:15 lunch

### 6 Posters

S. Burcher, K. A. Chipps, et. al., *Proton and Gamma Partial Widths for the Astrophysical $^{30}P(p,\gamma)^{31}S$ Reaction*

M. Vilen1, A. Kankainen1, et al., *High-precision mass measurements and production of neutron-deficient isotopes*

W. R. Plass, *Measurement of half-lives and decay branching ratios of exotic nuclei with the FRS Ion Catcher*