

Proposal Number (User Support Office use only)

Date: \_\_\_\_\_

**Proposal for Nuclear Physics Experiment at RI Beam Factory**  
(RIBF NP-PAC-22, 2021)

<b>Title of Experiment</b>	
<b>Category</b>	<input type="checkbox"/> NP experiment <input type="checkbox"/> Detector R&D <input type="checkbox"/> Construction <input type="checkbox"/> Update proposal (Experimental Program: NP____-____ ) <input type="checkbox"/> Re-evaluation (Experimental Program: NP____-____ )
<b>Experimental Devices</b>	<input type="checkbox"/> GARIS <input type="checkbox"/> RIPS <input type="checkbox"/> CRIB <input type="checkbox"/> KISS <input type="checkbox"/> BigRIPS <input type="checkbox"/> Zero Degree <input type="checkbox"/> SHARAQ <input type="checkbox"/> OEDO <input type="checkbox"/> RI Ring <input type="checkbox"/> SAMURAI
<b>Detectors</b>	<input type="checkbox"/> DALI2 <input type="checkbox"/> GRAPE

**Spokesperson (Only one person, Multiple spokespersons not accepted) :**

Name		
Institution		
Title of position		
Address		
Tel	Fax	
Email		

**Co-Spokesperson (If any) :**

Name		
Institution		
Title of position		
Address		
Tel	Fax	
Email		

**In-House Contact Person (If any) :**

Name		
Institution		
Title of position		
Address		
Tel	Fax	
Email		

**Beam Time Request Summary:**

Please indicate requested beam times of  $T_{\text{User-Tuning}}$  &  $T_{\text{User-Data Run}}$  only.  $T_{\text{BigRIPS}}$  and **Total** times will be given by RIKEN.

Total Beam Time	$T_{\text{BigRIPS}}$ : Tuning time with BigRIPS for secondary beam settings	(User Support Office use only)	Days
	$T_{\text{User-Tuning}}$ : Tuning time for users' own equipment and/or detectors using primary / secondary beams		Days
	$T_{\text{User-Data Run}}$ : Beam-time for data runs		days
<b>TOTAL</b>		(User Support Office use only)	<b>days</b>

**Beam summary**

**Primary Beam:**

Particle		Energy	(E/A MeV)	Intensity	(pnA)
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**Secondary Beams:**

RI Beams				Beam-on-Target Time for DATA RUN
Isotope	Energy (E/A MeV)	Rate of Isotope (/s)	Total Beam Rate @ F3 (/s)	Days

**Fill each row for each BigRIPS setting, with objective isotope, its energy, rate, and total beam rate which cannot exceed  $10^7/s$  in BigRIPS due to radiation regulation.**

**Keywords:**

<input type="checkbox"/> New isotope search
<input type="checkbox"/> Lifetime measurement
<input type="checkbox"/> Mass measurement
<input type="checkbox"/> Superheavy element
<input type="checkbox"/> $\beta$ - $\gamma$ spectroscopy
<input type="checkbox"/> In-beam $\gamma$ -ray spectroscopy <input type="checkbox"/> $2^+_{1st}$ study
<input type="checkbox"/> Nucleosynthesis <input type="checkbox"/> r process <input type="checkbox"/> rp process
<input type="checkbox"/> Nuclear structure around <input type="checkbox"/> $^{32}\text{Mg}$ <input type="checkbox"/> $^{42}\text{Si}$ <input type="checkbox"/> $^{78}\text{Ni}$ <input type="checkbox"/> $^{100}\text{Sn}$ <input type="checkbox"/> $^{132}\text{Sn}$ <input type="checkbox"/> Others (      )
<input type="checkbox"/> Nuclear reaction
<input type="checkbox"/> Shell evolution
<input type="checkbox"/> Nuclear moment
<input type="checkbox"/> Spin-isospin excitation
<input type="checkbox"/> Nuclear force
<input type="checkbox"/> Nuclear equation of state
<input type="checkbox"/> Exotic atom
<input type="checkbox"/> Others (      )

**Readiness**

Estimated date ready to run the experiment	
Dates which should be excluded, if any	

**Summary of Experiments**



### **Detailed Description of the proposed experiment**

Please describe in details about the proposed experiment, where the format is free. They should include;

1. Goals and methods of the proposed experiment
  2. Estimation of beam time requested
  3. Experimental conditions such as beam conditions, targets and detectors
  4. Readiness
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