

Snowmass 2021

RARE PROCESSES AND PRECISION MEASUREMENTS FRONTIER

RF4: Baryon and Lepton Number Violating Processes

Topical conveners meeting

Sep 8, 2021

co-Conveners:

[Pavel Fileviez Perez](#) (Case Western Reserve University)

[Andrea Pocar](#) (University of Massachusetts, Amherst)

<https://snowmass21.org/rare/blv>

BLV Master White Paper

1. **Theories for baryon and lepton number violation:** *P. Fileviez Perez (CWRU), M.B. Wise (Caltech)*
2. **Neutrinoless double beta decays:** *V. Cirigliano (LANL), A. Pocar (UMass)*
3. **Baryon and Lepton number violation at colliders:** *R. Ruiz (Cracow, INP), E. Thomson (UPenn)*
4. **Proton decay:** *E. Kearns (Boston Univ.), S. Raby (Ohio State Univ.)*
5. **n-nbar oscillations:** *K. Babu (OSU), L. Broussard (ORNL)*
6. **More exotic L and B violating processes:** *S. Gardner (Univ. of Kentucky), J. Heeck (Virginia)*
7. **Connections to Cosmology:** *A. Long (Rice Univ.), C. Wagner (Univ. of Chicago/ANL)*

Each pair of topical leaders will be in charge of their section.

LOIs and other white papers will be included or linked to, as needed.

Format - BLV Master White Paper

- Introduction (~3 pages)
- 7 sections: (~5 pages for each section)
- Summary (~3 pages).

We will write a ~ 10 pages summary giving an overview of the white paper before March 31st !