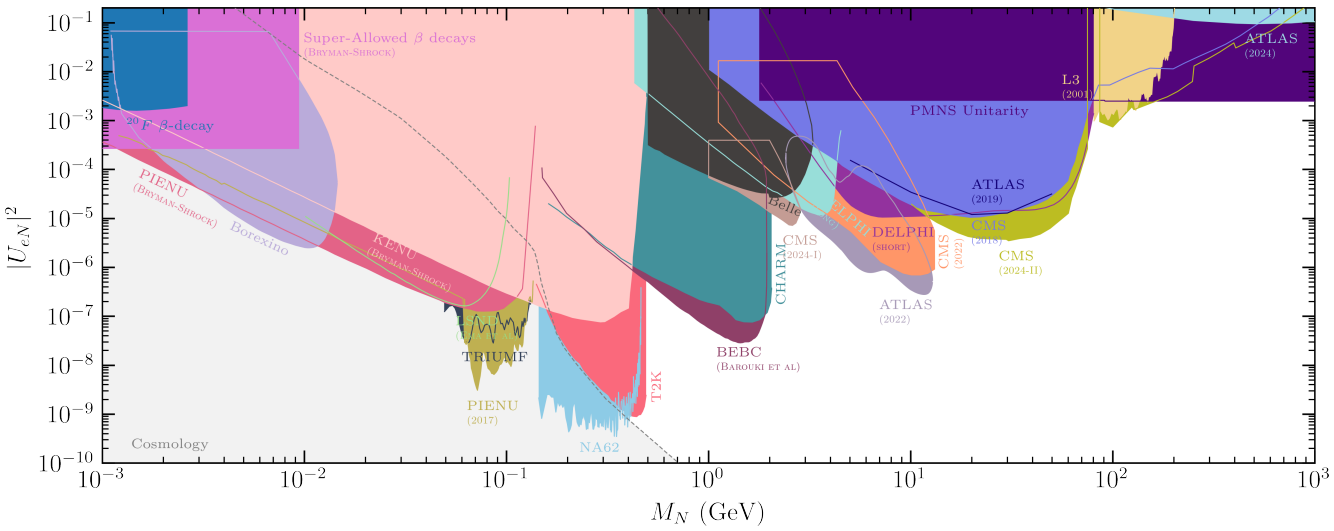

FIG. 1. Constraints on $|U_{eN}|^2$ as a function of the HNL mass m_N. Limits shown: ^{20}F β-decay [1], ATLAS (2019) [2], ATLAS (2022) [3], ATLAS (2024) [4], BEBC(Barouki et al) [5], Belle [6], Borexino [7], CHARM [8], CMS (2018) [9], CMS (2022) [10], CMS (2024-I) [11], CMS (2024-II) [12], Cosmology [13], DELPHI (long) [14], DELPHI (short) [14], KENU (Bryman-Shrock) [15], L3 (2001) [16], LSND (Ema et al) [17], NA62 [18], PIENU (2017) [19], PIENU (Bryman-Shrock) [15], PMNS Unitarity [20], Super-Allowed β decays (Bryman-Shrock) [15], T2K [21], TRIUMF [22].

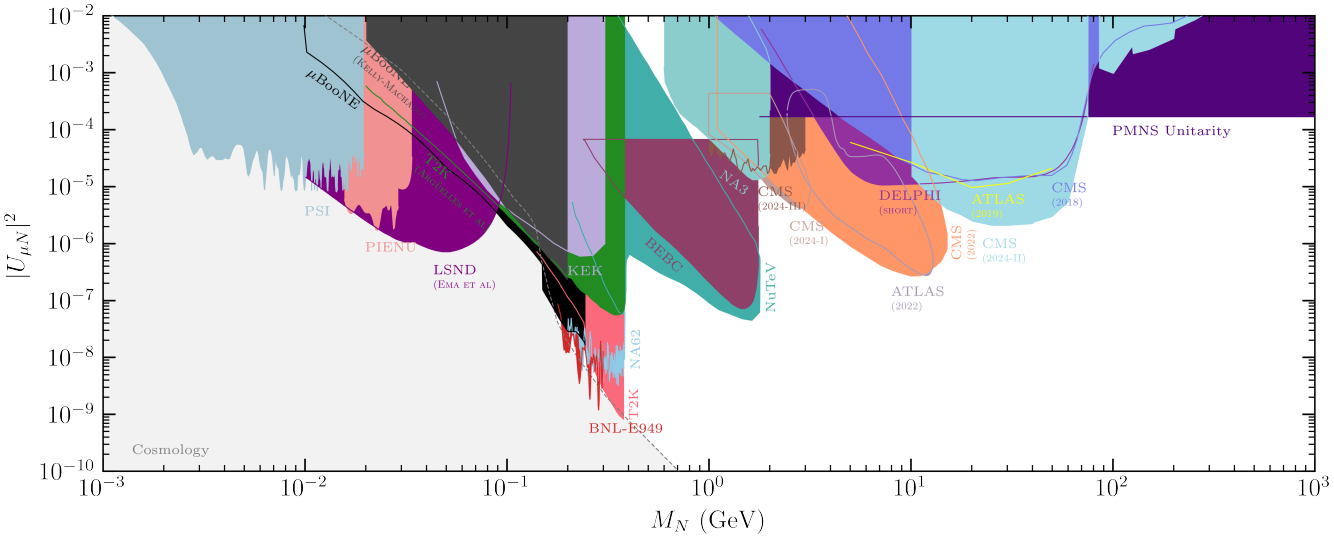

FIG. 2. Constraints on $|U_{\mu N}|^2$ as a function of the HNL mass m_N. Limits shown: μBooNE [**?**], μBooNE (Kelly-Machado) [23], ATLAS (2019) [2], ATLAS (2022) [3], BEBC [24], BNL-E949 [25], CMS (2018) [9], CMS (2018-dilepton) [26], CMS (2022) [10], CMS (2024-I) [11], CMS (2024-II) [12], CMS (2024-III) [27], CMS (8TeV) [28], Cosmology [13], DELPHI (short) [14], KEK [15], LSND (Ema et al) [17], NA3 [29], NA62 [30], NuTeV [31], PIENU [32], PIENU(low μ energy) [32], PMNS Unitarity [20], PSI [33], T2K [21], T2K (Argüelles et al) [34].

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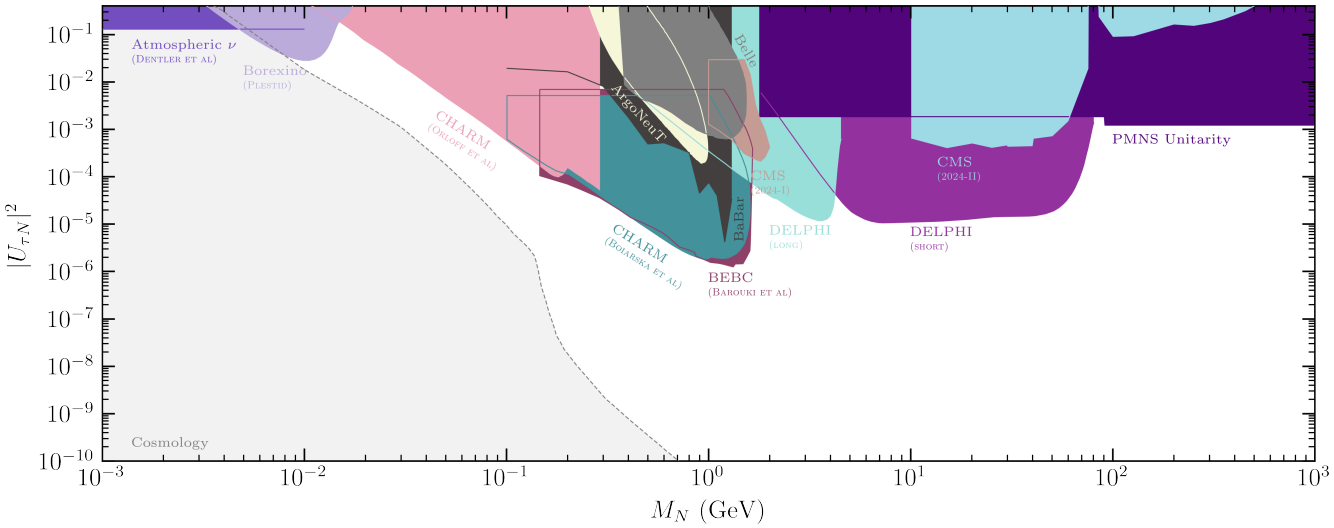

FIG. 3. Constraints on $|U_{\tau N}|^2$ as a function of the HNL mass m_N. Limits shown: ArgoNeuT [35], Atmospheric ν (Dentler et al) [36], BEBC(Barouki et al) [5], BaBar [37], Belle [38], Borexino (Plestid) [39], CHARM (Boiarska et al) [40], CHARM (Orloff et al) [41], CMS (2024-I) [11], CMS (2024-II) [12], Cosmology [13], DELPHI (long) [14], DELPHI (short) [14], PMNS Unitarity [20].

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