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To whom it may concern,

The COMET Muon-to-Electron Search Experiment

I am writing in my capacity as Collaboration Board Chair for the COMET Experiment which is currently being built at the J-PARC proton accelerator laboratory in Japan. It is my honour to have been elected to represent, within the Executive Board, the 34 institutions across 17 nations of the COMET collaboration including, of course, JINR. I am also a co-convenor of the Software and Analysis working group within the collaboration, which is another way through which I engage with many of my fellow collaborators.

In early 2023, the newly-completed COMET beam line was commissioned with an 8 GeV proton beam in the form of "Phase- α " data-taking, with a suite of detectors showing that the novel curved-solenoid system successfully transported pions and muons through a 90-degree arc, setting the stage for Phase-I physics data-taking in 2026.

The accelerator beam and experimental facility, which is ready to produce a proton beam with record levels of inter-bunch particle extinction, and the detector systems for Phases I and II are all coming together, for a programme of data-taking that will push the sensitivity to muon-to-electron conversion to 10,000 times better than the existing world limit. Current studies are indicating that we will eventually be able to push this even further by possibly another order of magnitude, through design innovations and technical refinements.

Key to this entire programme are the Cosmic Ray Veto detectors, which play the critical role of tagging any cosmic ray muons that can lead to signatures that mimic the signal electrons, thereby directly affecting the sensitivity of all phases, and the Straw Tube Tracker. This allows

the signal electrons' momenta to be measured whilst disturbing their paths as little as possible, which again will define the sensitivity that the COMET programme is able to achieve, with ongoing R&D continuing to improve performance. These are examples of the ways in which the collaboration with JINR is absolutely crucial for the success of COMET.

In the years ahead, the collaboration will transition from construction and analysis preparations to data-taking and real data analysis, whilst further work towards Phase-II will also continue. Data-taking and analysis are the culmination of our many years of construction work, and it will be period of intense activity, excitement and challenges, where the products of our efforts will be brought together to probe the limits of the Standard Model.

As a collaboration, it extremely important that the key contributing institutions continue to play major roles as we enter the physics analysis period of the experiment, where our understanding of the detectors that we have built will be critical, and the knowledge that we gain will help us optimise designs and configurations for future data-taking.

For these reasons, it is without any hesitation that I add my voice to those of my collaborating colleagues to urge, in the strongest terms, that JINR continues to make its important and irreplaceable contributions to COMET as we enter this very special period for our experiment.

Yours faithfully,



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