Contribution ID: **56** Type: **Oral**

Review on Gravitational Inverse Square Law and Lorentz Violation

Sunday, 28 September 2025 11:45 (30 minutes)

To experimentally make breakthroughs in exploring quantum gravity, searching for the violation of the gravitational inverse square law to probe large extra dimensions predicted by string theories, and the violation of Lorentz symmetry, is attracting significant interest. Recent progress on these fields and their interpretations will be presented in this talk. Especially, the gravitational inverse square law is tested on a wide variety of scales, from laboratory to quark scales, but their mutual interpretation in physics models is confusing. Their comparison in the same parameter spaces will be shown to introduce the experimental attempts.

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Session Classification: Scientific Program