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CP violation in $B_s \to \phi\mu^+\mu^-$ Decay at FCC-ee

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The feasibility of the time-dependent CP violation measurement $B_s^0 \to \phi(\to K^+K^-)\mu^+\mu^-$ at the FCC-ee is discussed. Future Z-factories offer an ideal setting for measuring this decay due to the large statistics, clean environment, particle identification, and excellent vertexing capabilities. These precision measurements are interpreted in the Weak Effective Theory (WET), providing a comprehensive understanding of CP properties of the potential New Physics (NP) in these rare decays.

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