The 13th International Workshop on e+e- collisions from Phi to Psi

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On masses of narrow Υ states

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In view of a new experiment which is under preparation at VEPP-4M collider at Novosibirsk the results the mass measurements conducted about forty years ago were reanalyzed. The reanalysis includes, when required, radiative corrections, interference effects, use of modern electron's mass value and more accurate numerical calculations. The shift of $\Upsilon(2S)$ mass for some measurements reach 0.4 MeV. The disagreement of $\Upsilon(1S)$ mass measurements at CESR and VEPP-4 has reduced from 3.2 to 1.8 standard deviations (0.29 MeV). The forthcoming experiment is briefly discussed. The expected accuracy of $\Upsilon(1S)$ mass measurement is about 50 keV.

Category

talk

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