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Higgs-radion Interpretation of the 750 GeV di-photon excess at the LHC (12' + 3')

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We present a possible interpretation of the excess in the di-photon channel at 750 GeV recently observed by ATLAS and CMS as the radion of the five-dimensional Randall-Sundrum model. We show that the Higgs-radion scenario can give a cross section of (5–⊠15) fb in the di-photon final state at 750 GeV while at the same time giving a very SM-like state at 125 GeV. Tests of the model using other final states will be discussed. Theoretical implications of this di-photon explanation are also considered.

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