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$K(1460)$ **resonance as the kaonic** $KK\bar{K}$ **system** ROMAN KEZERASHVILI, New York City College of Technology, CUNY, IGOR FILIKHIN, VLADIMIR SUSLOV, North Carolina Central University, SHALVA TSIKLAURI , Borough of Manhattan Community College, CUNY, BRANISLAV VLAHOVIC, North Carolina Central University — The $K(1460)$ pseoudoscalar resonance is studied within a non relativistic potential three-body kaonic $KK\bar{K}$ model in the framework of the Faddeev equations in configuration space. We use a single-channel approach employing two sets of phenomenological KK and $K\bar{K}$ potentials and taking into account the difference of masses of K and $\bar{K}$ kaons. The latter leads to splitting the mass of the $K(1460)$ resonance according to $K^0K^0\bar{K}^0$, $K^0K^+K^-$ and $K^+\bar{K}^0K^0$, $K^+K^+K^-$ constituent particle states. The effect of the Coulomb force for $K^0K^+K^-$ and $K^+K^+\bar{K}^-$ systems is considered. Results of calculations for the mass of $K(1460)$ vary from 1469.7 to 1459.5 MeV depending on the constituent particles of the $KK\bar{K}$ system and the range of parameters for KK and $K\bar{K}$ potentials. Our results are in reasonable agreement with the SLAC experiment value 1460 MeV [1] and LHCb recent experimental study 1482.40±3.58±15.22 MeV [2]. The width of the resonance is around 142 MeV, which is significantly less than the experimental results. [1] G. W. Brandenburg, et al., Phys. Rev. Lett **36** (1976) 703. [2] R. Aaij et al., Eur. Phys. J. C **78** (2018) 443.

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