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# MAGIC

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## Science of the Cosmos

Contribution ID: 69

Type: **not specified**

### The X(1750) decay widths in the $C^3P_0$ model

The Fock-Tani representation, is a field theoretic formalism to treat problems involving both composite particles and their constituents. The application of the Fock-Tani transformation to a pair creation Hamiltonian produces the characteristic expansion in powers of the wave function. In lowest order of this expansion, we obtain the model known in the literature: the  $^3P_0$  Model. In higher orders, the Corrected  $^3P_0$  Model ( $C^3P_0$  Model) is obtained by introducing the bound state kernel. In this work, we use the  $C^3P_0$  Model to calculate the X(1750) decay rates, where we consider that the X(1750) is a mixture given by  $c_1 [u\bar{u} + d\bar{d}] + c_2 s\bar{s}$ .

**Author:** Dr CAVAGNOLI, Rafael (UFPeI)

**Co-authors:** Mr MATOS MACHADO, Atael (SEDUC - AM); Dr TAVARES DA SILVA, Daniel (UFPeI)

**Presenter:** Dr CAVAGNOLI, Rafael (UFPeI)