NUMERICAL SOLUTION OF COUPLED CONVECTIVE - RADIATIVE HEAT TRANSFER ON TRIANGULAR MESHES

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ABSTRACT.   The present communication deals with the application of numerical methods to compute the coupling between natural convection and radiative heat transfer. The flow is solved with a weighted residual method and the radiative heat transfer is computed by the discrete transfer method applied to unstructured triangular meshes. The evaluation of the code is presented by its application to test cases related to the coupling of natural convection and radiation in 2-D cavities, filled with a grey medium.