RAISING THE ORDER OF APPROXIMATION IN BICOMPACT SCHEMES

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The paper studies the feasibility of raising the order of approximation in bicompact schemes used for solving radiative heat transfer. The order is raised through the use of quadrature formulas of the fourth order of approximation. Additional requirements for the difference approximation include unconditional stability and positiveness. These properties of bicompact schemes are investigated through the analysis of stream marching stability and temperature positiveness.