

LOCALLY CORRELATED SLW MODEL FOR PREDICTION OF GAS RADIATION IN NON-UNIFORM MEDIA

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ABSTRACT. Following previous theoretical development based on the assumption of a rank correlated/comonotonic spectrum, the Locally Correlated SLW (LC-SLW) method is outlined. The relationship between the LC-SLW method and the RC-SLW method is established, and their performance in prediction of radiative transfer is compared. Despite the fact that the RC-SLW model demonstrates better overall accuracy, the LC-SLW model generally proves more accurate in regions of higher gas temperature.