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Light rainfall: the accuracy of identification and retrieval using satellite remote sensing

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The paper investigates the ability of satellite remote sensing techniques to retrieve rainfall. In particular, the composition of rainfall retrieval in terms of intensity is examined, together with the retrieval of light rainfall. Current methodologies for the estimation of rainfall are split between two approaches: one using a delineation of rain area then a retrieval of rainfall within that area, whilst the other relies upon a continuous rain intensity spectrum and sets a threshold below which zero rain occurs. These two approaches are compared using examples over the United Kingdom for different meteorological situations. The initial results indicate that many rainfall techniques seriously underestimate the extent of rainfall and particularly the light rainfall.