Response to reviewer

In the final version I have fixed the typos on pages 4 and 7, which are as given below

p.4, line 17: applied to real data

p.4, line 18: boxes are combined.

p. 7, line 3: heights, i.e.,

I have also changed line 17 of page 8 slightly to indicate that the uniform distribution and the Beta(1,1) distribution are one and the same distribution.

'In the simplest case, where the cloud fraction in each grid box is uniformly or Beta(1,1) distributed (e.g. LeTreut and Li, 1991), Eq. 28 gives:'

p.8, line 17: 'this' is not clear