We'd like to thank the anonymous reviewer for the constructive comments; we've taken them into account and implemented the changes detailed below in blue.

Thanks again for your time, and best wishes,

Sam Spencer (on behalf of the authors)

SECTION 1

- line 15- "can also inform temperature management and SiPM selection for SSTCAM": this sentence is not well understood => "can also inform the camera temperature control system" ? Sentence re-written.

SECTION 2:

- line26: " nor does it realistically simulate" => nor realistically simulates Done

- line 31: "a model similar to Krisciunas and Schaeffer" => similar to that in Krisciunas and Schaeffer" (?) Done

- Eq.2 => there is a doube parehthesis in the exponent)) Fixed

- Eq5: there is a comma between the two conditions (which is not present for instance in Eq. 3) It was intended as an in-equation comma as part of the flow of the text similar to that in Eq. 2 and 4; we've added a closing case bracket and extra spacing to try and make this clearer.

- line 59: double citation of [6] Fixed

- line 62: could you explain why the photon detection efficiency is 40%? It's a value corresponding to the peak PDE of the Hamamatsu S12642-1616PA-50 SiPMs used for CHEC-S, on which SSTCAM will be largely based. We've added text to that effect.

- FIg1: the panels are not at the same scale, so it may give the wrong impression that, for instance, Full moonlight produces less NSB noise than Half moonlight. Perhaps using the same scale would help in this. This is a good point, but setting all the scales to be the same would make the 'dark frame' completely black, losing evidence of the inhomogeneity in the field. We've added a disclaimer to the caption instead, hopefully this is a fair compromise.

- line 113: please rephrase this sentence: " though the combination of moonlight and a bright stars means pixels greater with an NSB rate of greater than few GHz will need to be disabled and removed from Cherenkov analysis in order to manage SiPM heating" Rephrased.

- line 116 "around a GHz" => at a rate around 1 GHz Fixed