To reviewer:

Thank you for the deep understanding of the paper. We would like to address all of your remarks below, to make the manuscript more suitable for the readers.

A. The state of the art was expanded - we have included several new citations.

B. The theoretical limit of the resolution measured in number of image lines in the projection screen has been added in the article: " The theoretical limit of resolution was initially calculated in numerical simulations of the Point Spread Function (PSF) spot. The numerical experiment assumed the same geometry and imaging distance as the real experiment and the use of the whole area of the SLM (i.e. 1920 by 1080 pixels). The size of the PSF spot was $12x24\mu m^2$, therefore the vertical resolution limit was estimated at 183 image lines and the horizontal resolution at 366 image columns.".

C. We added the motivation for the use of mosaics in the beginning of the paper: " The spatial division can be used to display a mosaic of sub-holograms on the SLM, which instantly gives a noise suppression, because two or more intensity fields with different speckle distributions are displayed and averaged. Moreover this method speeds up the calculations due to smaller matrices, which can be computed in parallel.".

D. Paper title has been precised: “Experimental study of noise and image resolution in holographic projection with different spatial division techniques.”

E. Thank you for this remark. We changed the setup scheme.

F. We added the information to the text in page 1, column 2, in line 4 : “The distance between the light source and the SLM was 125mm and the reconstruction distance was c.a. 300mm.”

G. Thank you for this remark. Usually the noise and the resolution of a given display device are separate values. Nevertheless in our case the high speckle noise did not allow a good assessment of the resolution, because it affected the visibility of the small objects in the USAF test pattern. Therefore we first suppressed the noise and then estimated the image resolution. I hope this makes it more clear. We additionally changed the sentence to: " In order to correctly measure the image resolution, we first needed to suppress the speckle noise, because the high noise heavily affected the visibility of the fine details of the resolution test pattern."

H. Thank you - the English errors were corrected.

I. We changed the tables and added the magnification of the experimental results to present more details. The examined cases were numbered in the text from 1-7 and we unified the naming in Fig.2, Tab.1 and Tab.2.

J. You are right about the units - the mm^{-1} units are commonly used in the assessment of resolution, nevertheless in our study we tried to estimate the effective resolution of the projected image (i.e. number of resolved lines and columns on the projection screen) without describing the physical geometry (line pairs per millimeter). This measure allows the readers to easily compare the holographic projection with classic projectors. We added the following sentence to underline this: " In this way one can estimate the effective information density of this projection technique".

K. The noise achieved in case 6 is higher for the reasons explained in the next sentences. Nevertheless we edited them to underline this: " Nevertheless in this case we achieved higher noise, which leads to a conclusion that more care should be taken about the phase relations between the sub-holograms. Without taking this into account, the unwanted interferences occur between the images created by the 6 sub-holograms, which leads to increased noise ratio, as seen in Fig. 2 and Fig. 3.".

L. Thank you for this suggestion. We expanded the concluding part explaining the final decision on the best studied case.