

**Title:** Supplementary Movie 1:

**Description: Example of GST writing:** Focused laser light (not visible due to filter) is used to write the metalens “Metalens 1”.

**Title:** Supplementary Movie 2:

**Description: Example of GST erasing:** an area of GST is written and subsequently erased

**Title:** Supplementary Movie 3:

**Description: Animated sequence of writing and rewriting arbitrary images:** each frame contains an image which is written in the same position as the previous one after erasing it.