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6 SPF Biology,  
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23.11.2019

# The Time has come to recreate Images from Brain Waves



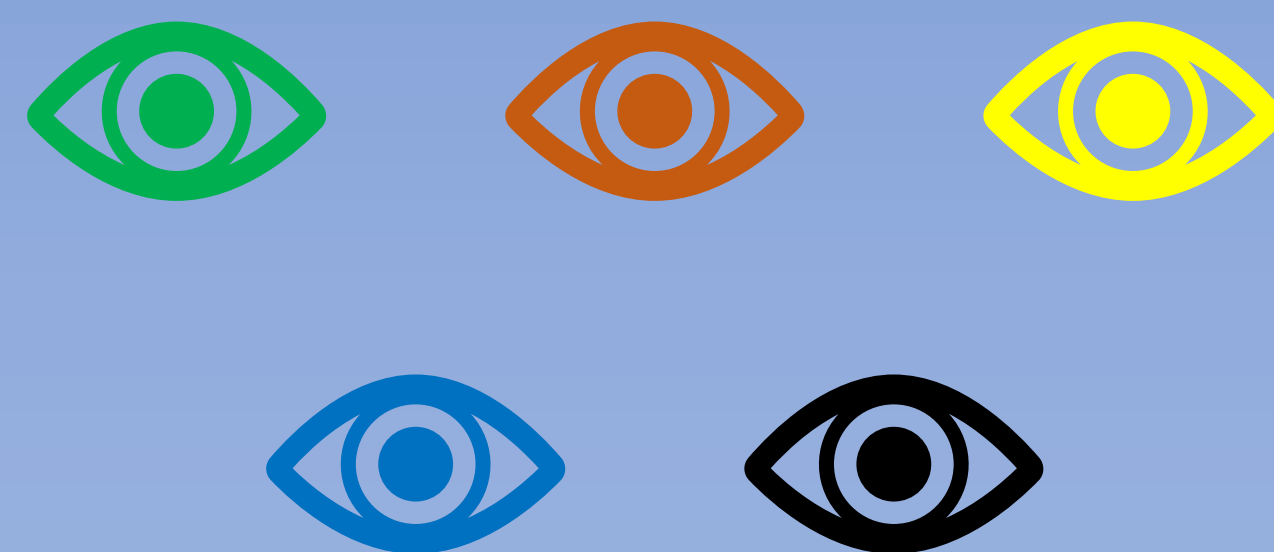
## Goals of the paper:

To explore the continuous effect of visual stimuli (images and videos) on brain activity and develop a model to convert the extracted brain waves into a comparable image to the original.

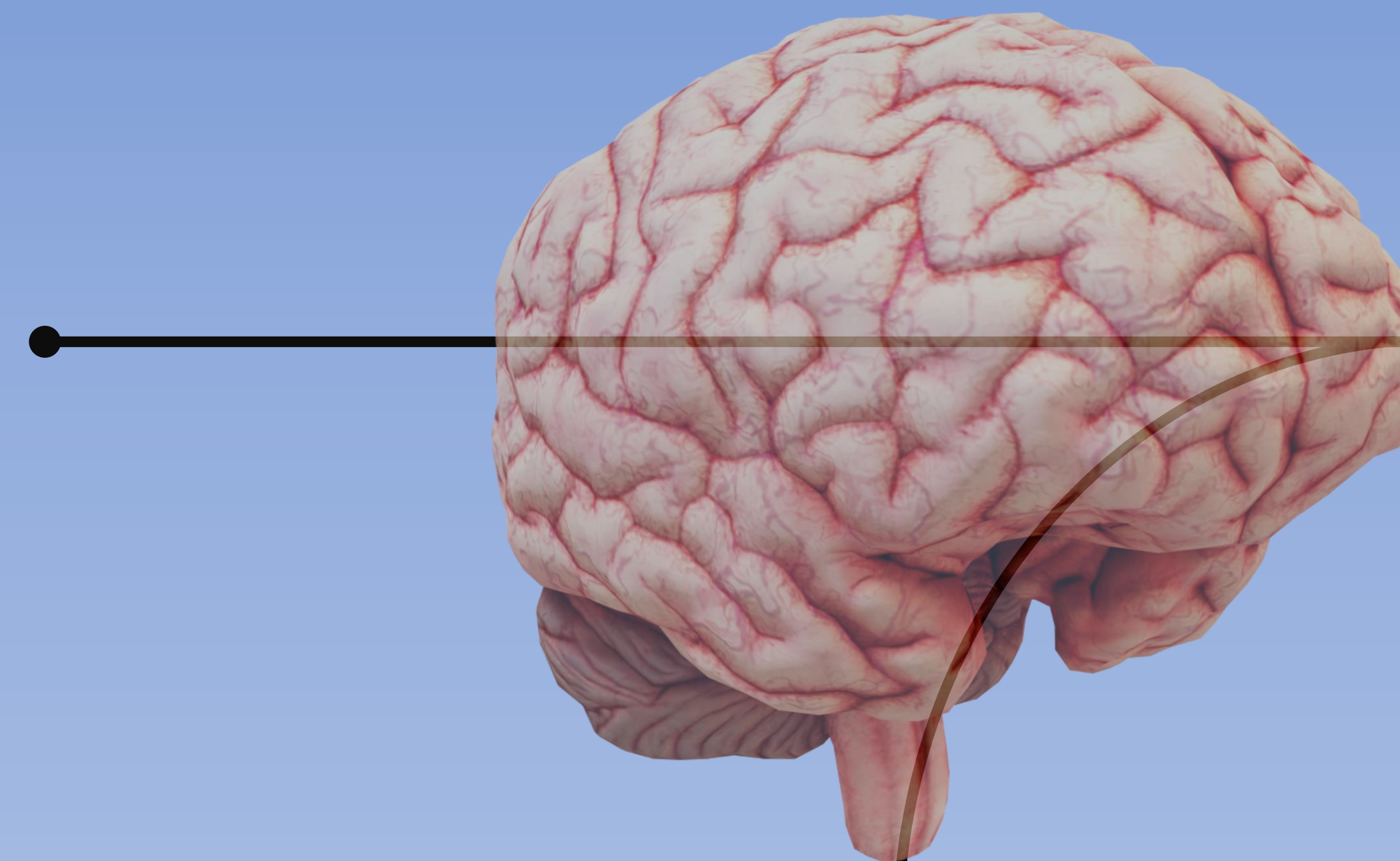
From the paper: *Natural image reconstruction from brain waves: a novel visual BCI system with native feedback*, Grigory Rashkov, Anatoly Bobe, Dmitry Fastovets, Maria Komarova  
DOI: 10.1101/787101

## Relevance:

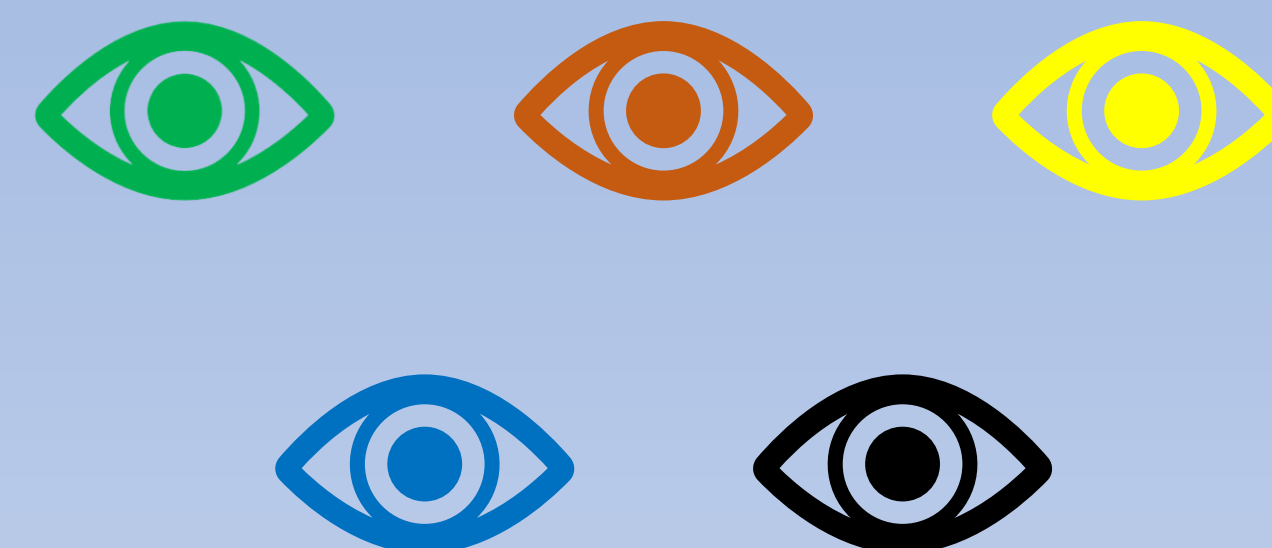
The ability to recreate accurate images from visual inputs in our brain leads to enormous technological advancements: Essentially, it enables us to see what a person is thinking (visually), which is both fantastic and terrifying at the same time.



Different visual stimuli...



...which can be read and decoded by an electroencephalogram (measuring electrical activity in the brain) and special software...



...until you are satisfied with the quality.



...which then transforms the data into low-quality images, which are reprocessed in the brain through a feedback loop, where they...

## The results:

The researchers were able to produce comparable images to the visual stimuli given to the test subjects, although the quality is currently lacking due to technological limitations. Additionally, using the feedback loop the subjects mastered the use of the brain-computer-interface in only a couple of minutes, promising further uses of this technology in the medical field in the future.