

Motion blindness induced by color in zebrafish larvea

Danio rerio

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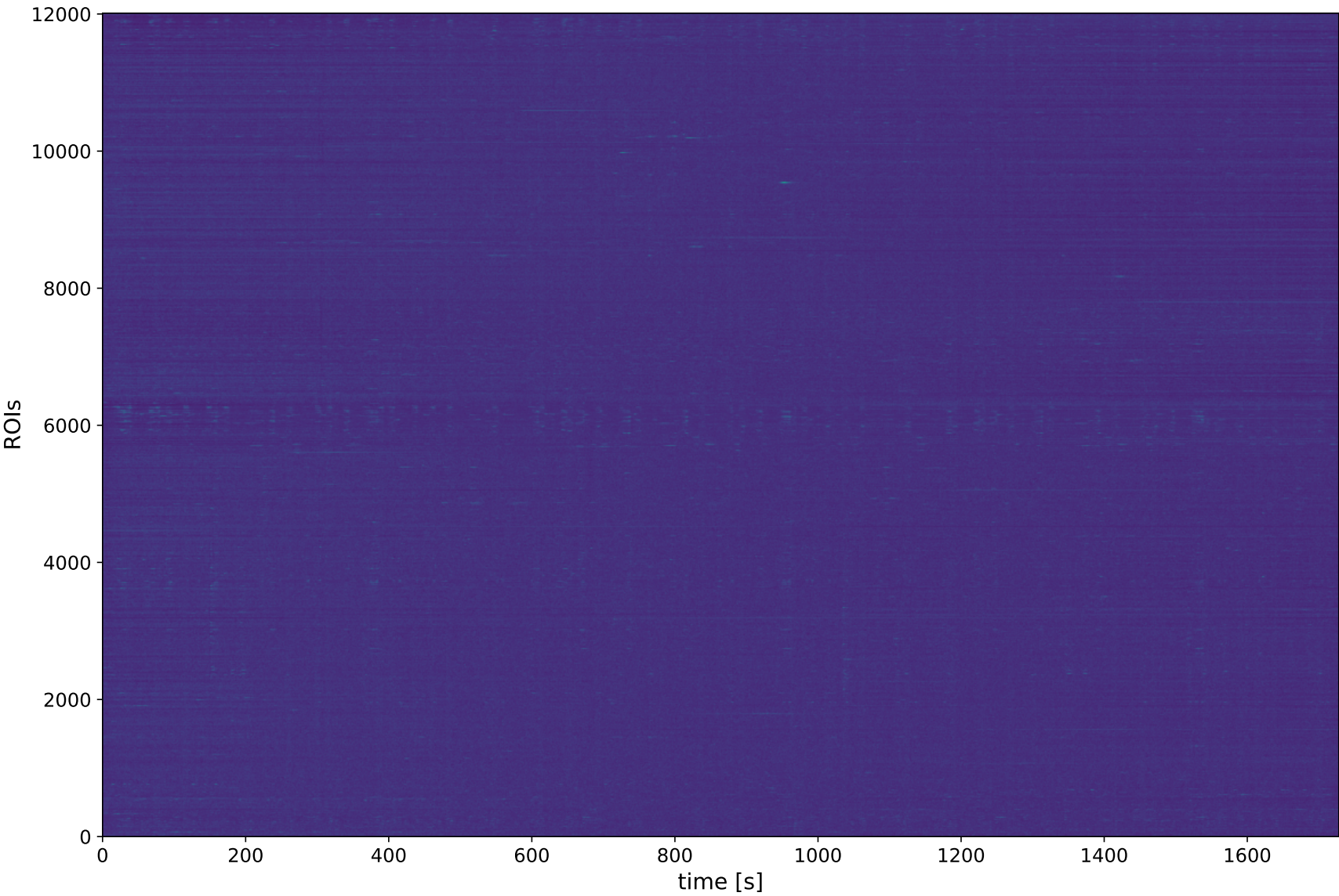
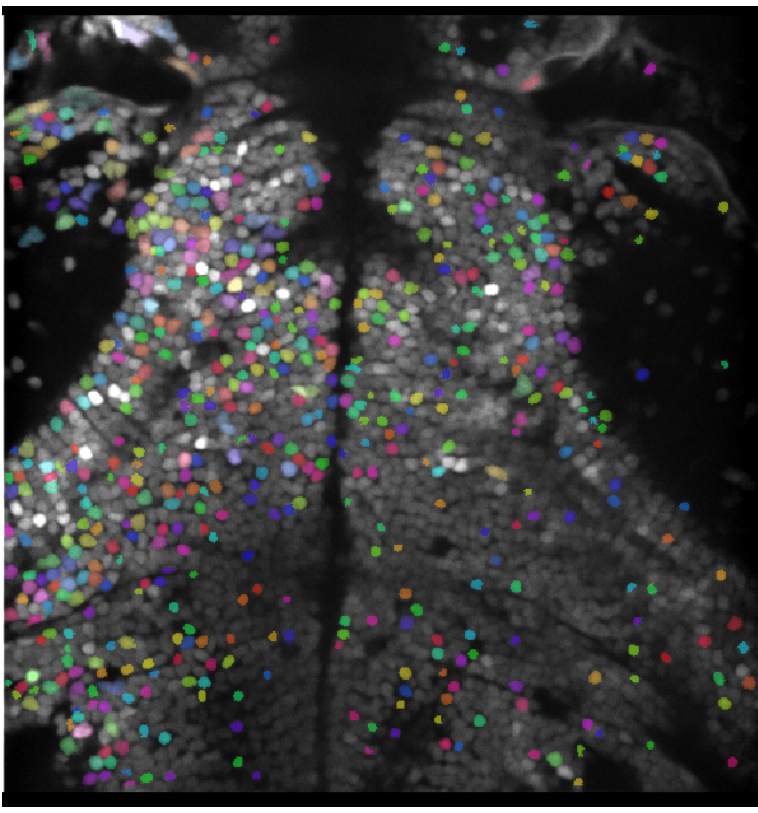
Introduction

Color has a big influence on motion vision in zebra-fish. Michael B. Orger (2004) displayed that zebra-fish in behavioural experiments show motion blind-ness to a grating of different colors, but little is known about the cortical structures conveying the „color-motion“ perception. We wanted to the investigate the optic tectum of the zebrafish larvae with calci-um imaging.



Regions of Interests (ROI)

Region of Interests corosponds to neurons with ge-netically encoded caclium indicators. The lumian-ce f of the calcium imaging is calculated from the change of luminance normalized to the average lu-minance $f = \frac{\Delta f}{f}$.



Detected modulations

We found phases of synchrony up to 50 Hz in $\Delta EOD f$ that lasted for over 10 minutes. Synchronous modulations ranged from clearly distinguishable and steep rises to smooth modulations with low $EOD f$ increases.

