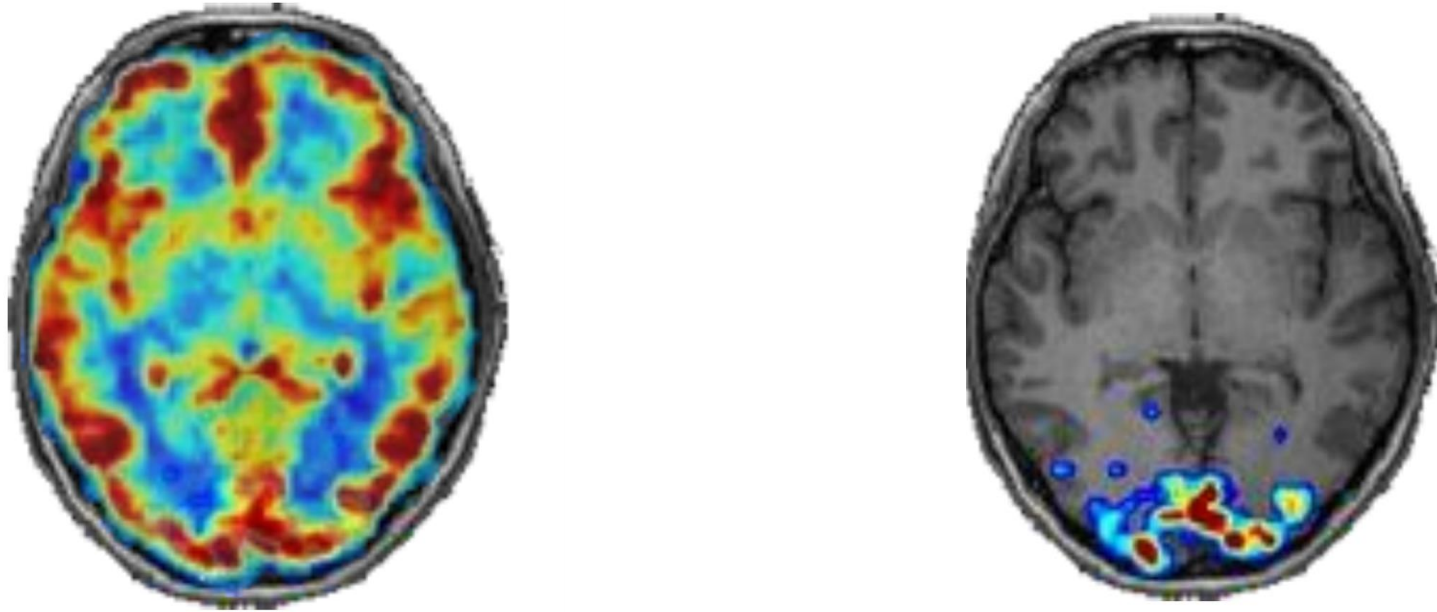# Functional MRI - I

Neuroimaging Workshop – session #6

28/09/2024

Agenda

- What is fMRI or what forms fMRI image ?

- How does fMRI image look like?
  - Show 4D and timeseries – (Demo with fsleyes)

- Strategies for extracting timeseries signals from fMRI image (Demo with Nilearn)

- If time permits, preprocessing steps and outputs (Demo)

What is fMRI?

Energy consumption in the brain
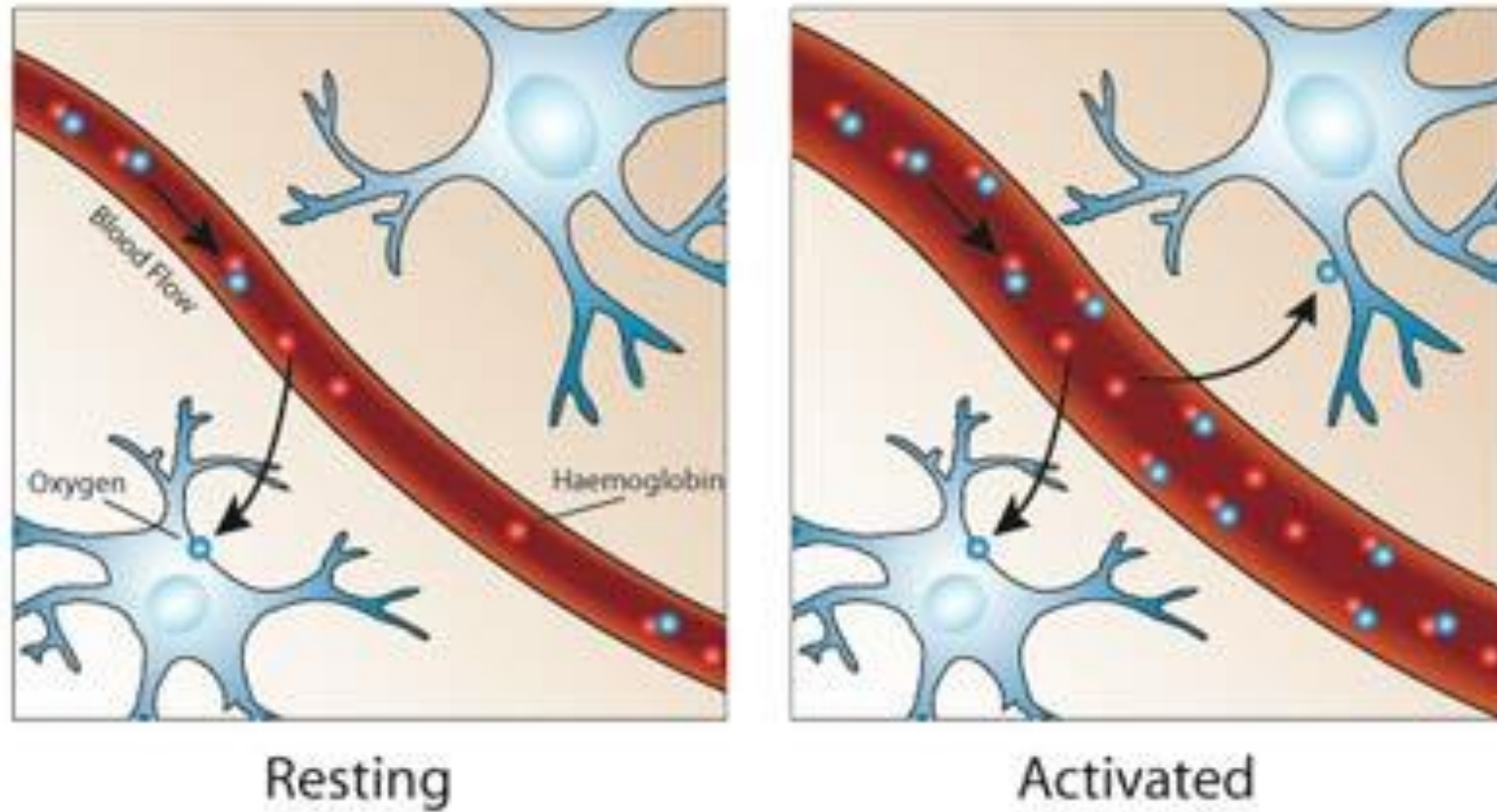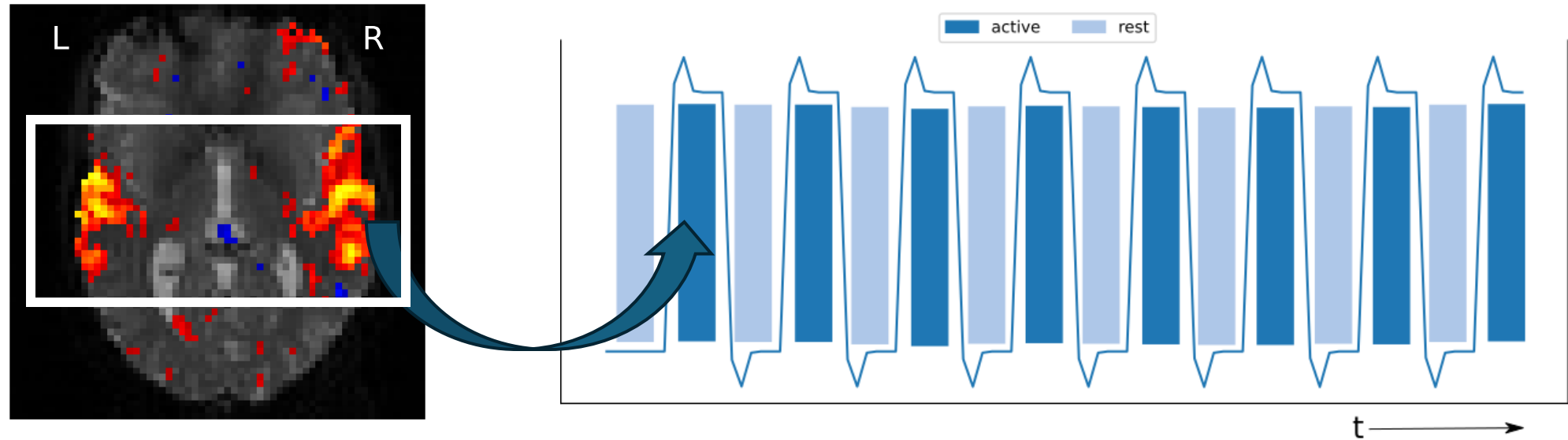
BOLD imaging

Diagram of the BOLD effect - Courtesy of Stuart Clare, FMRIB
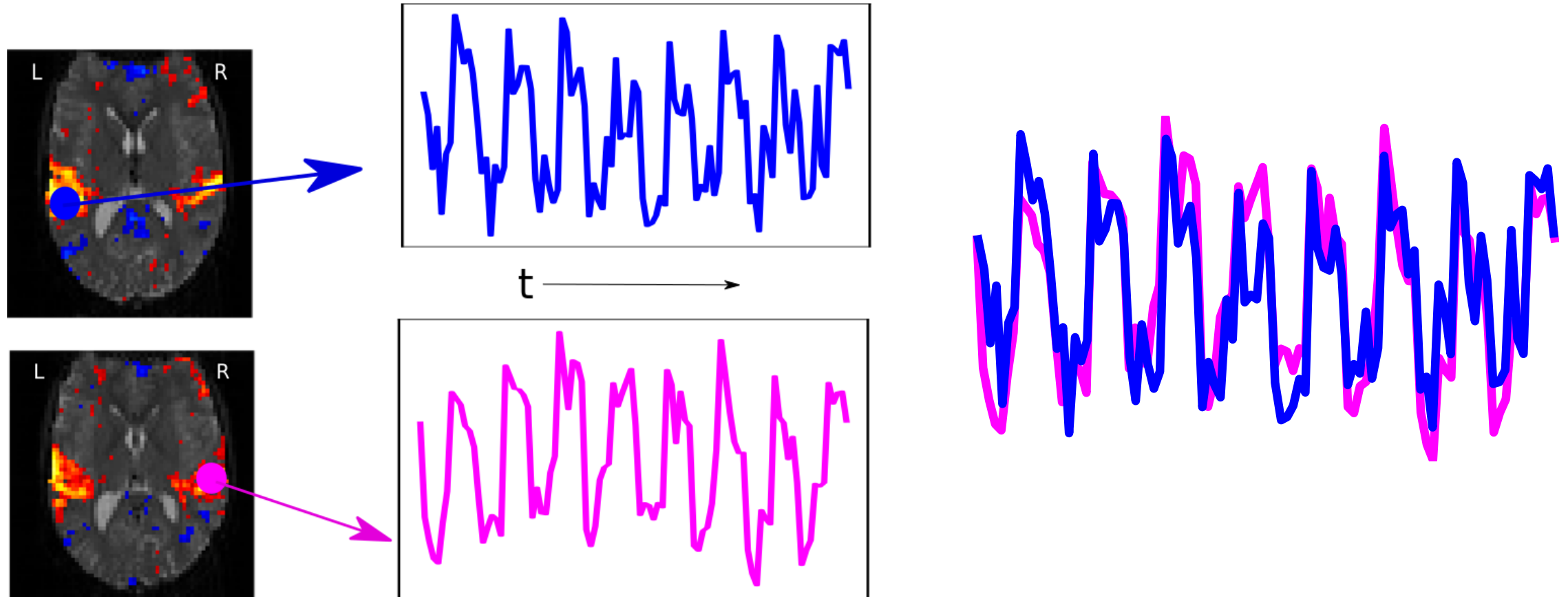
How does a fMRI image look like?

- Demo with fsleyes

Example: Activation map from fMRI image

Functional connectivity

Functional Connectivity – **temporal correlations between remote neurophysiological events**

- Karl Friston