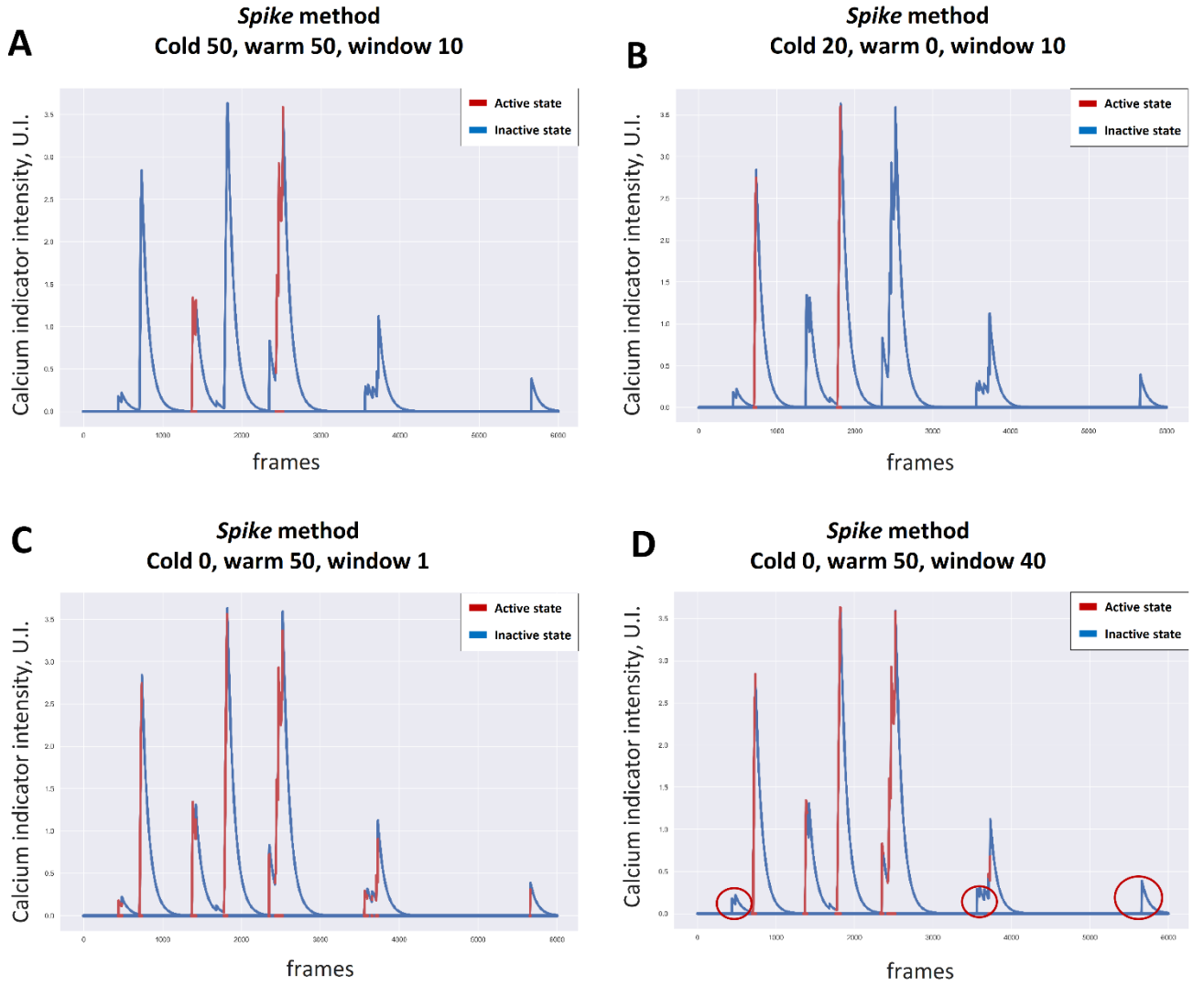
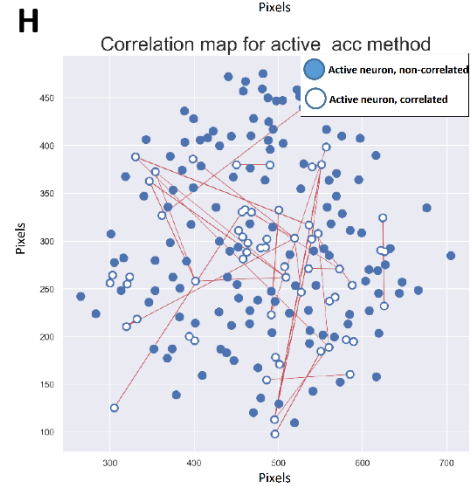
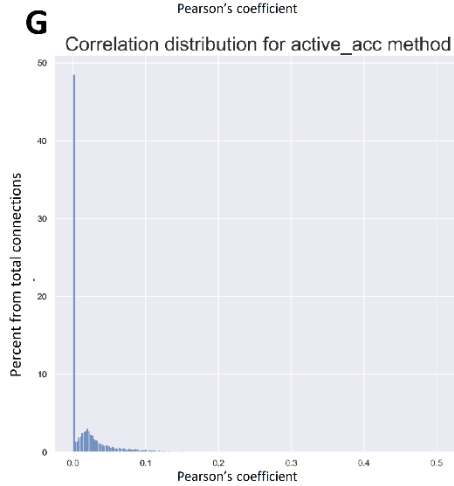
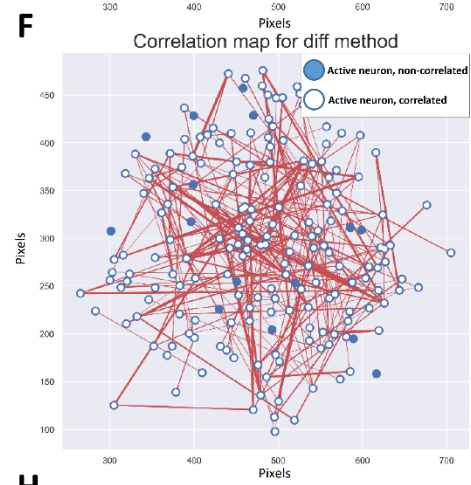
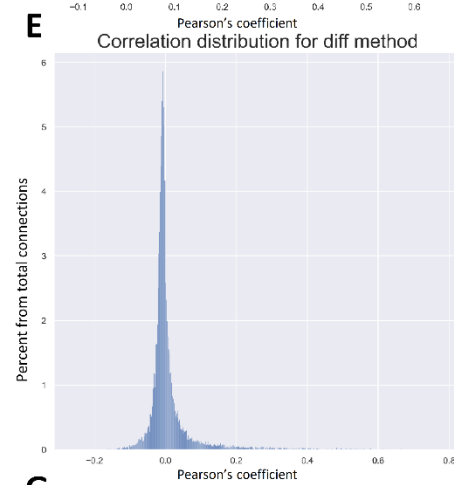
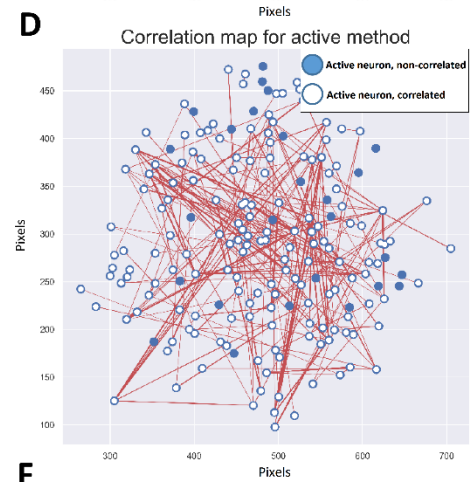
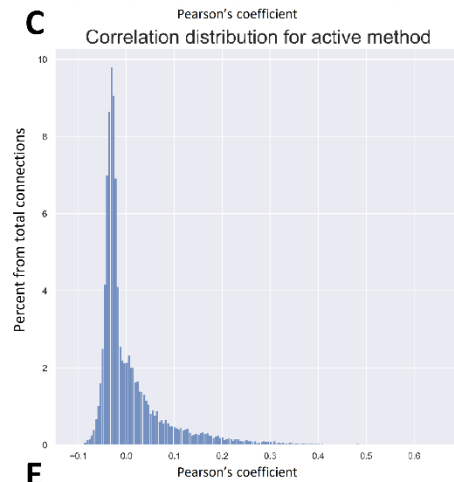
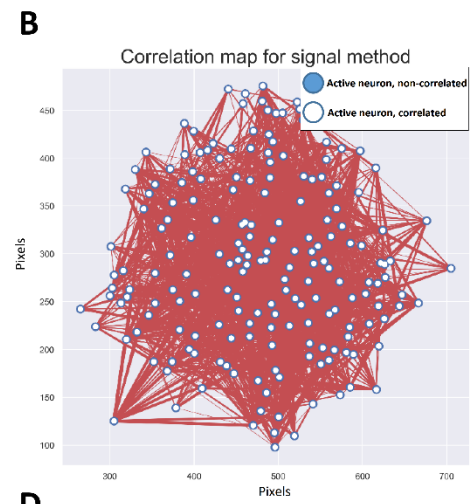
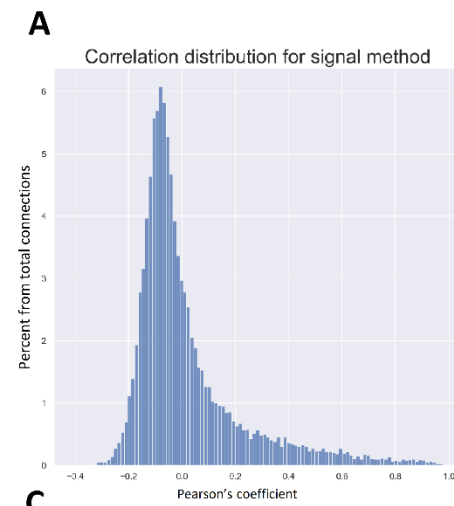


## Supplementary Material

### Supplementary Figures



**Supplementary Figure S1.** Parameters influence on the active phase determination. (A, B) Influence of the *warm* and *cold* parameters for segmentation of the rising phase of the calcium indicator fluorescence. (C, D) *Window* parameter value is important for determining active phase for small-magnitude fluorescent changes of the calcium indicator. By red circles in the (C) disappeared active states in comparison to (D) value are mentioned.



**Supplementary Figure S2.** Methods for calculation correlation coefficient implemented in NeuroActivityToolkit with preset threshold level at 0,3. **(A)** Correlation coefficient distribution for *signal* method. **(B)** Correlation map for *signal* method. **(C)** Correlation coefficient distribution for *active* method. **(D)** Correlation map for *active* method. **(E)** Correlation coefficient distribution for *diff* method. **(F)** Correlation map for *diff* method. **(G)** Activity intersection distribution for *active\_acc* method. **(H)** Correlation map for *active\_acc* method.