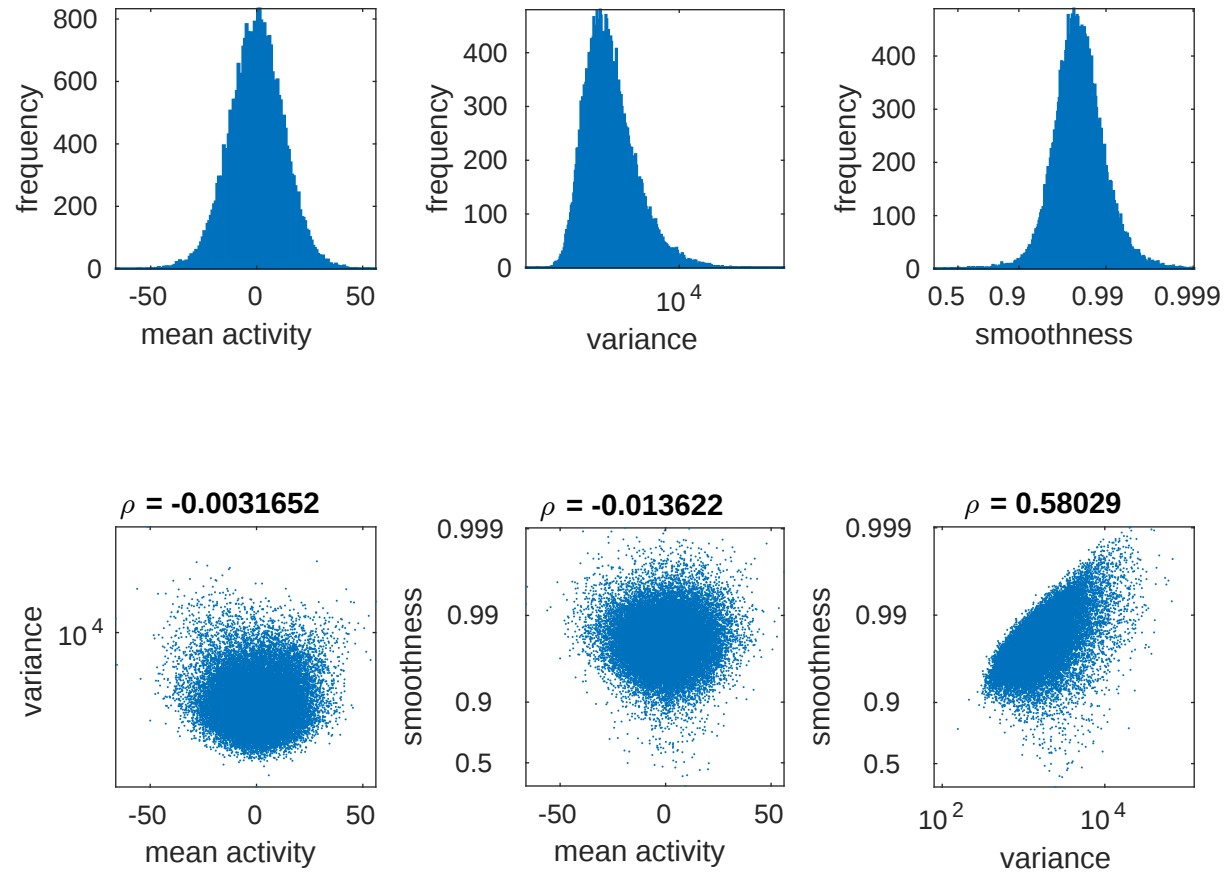


Time-resolved smoothness of distributed brain activity tracks conscious states and unifies emergent neural phenomena

Nanda A, Johnson GW, Mu Y, Ahrens MB,
Chang C, Englot DJ, Breakspear M, Rubinov M

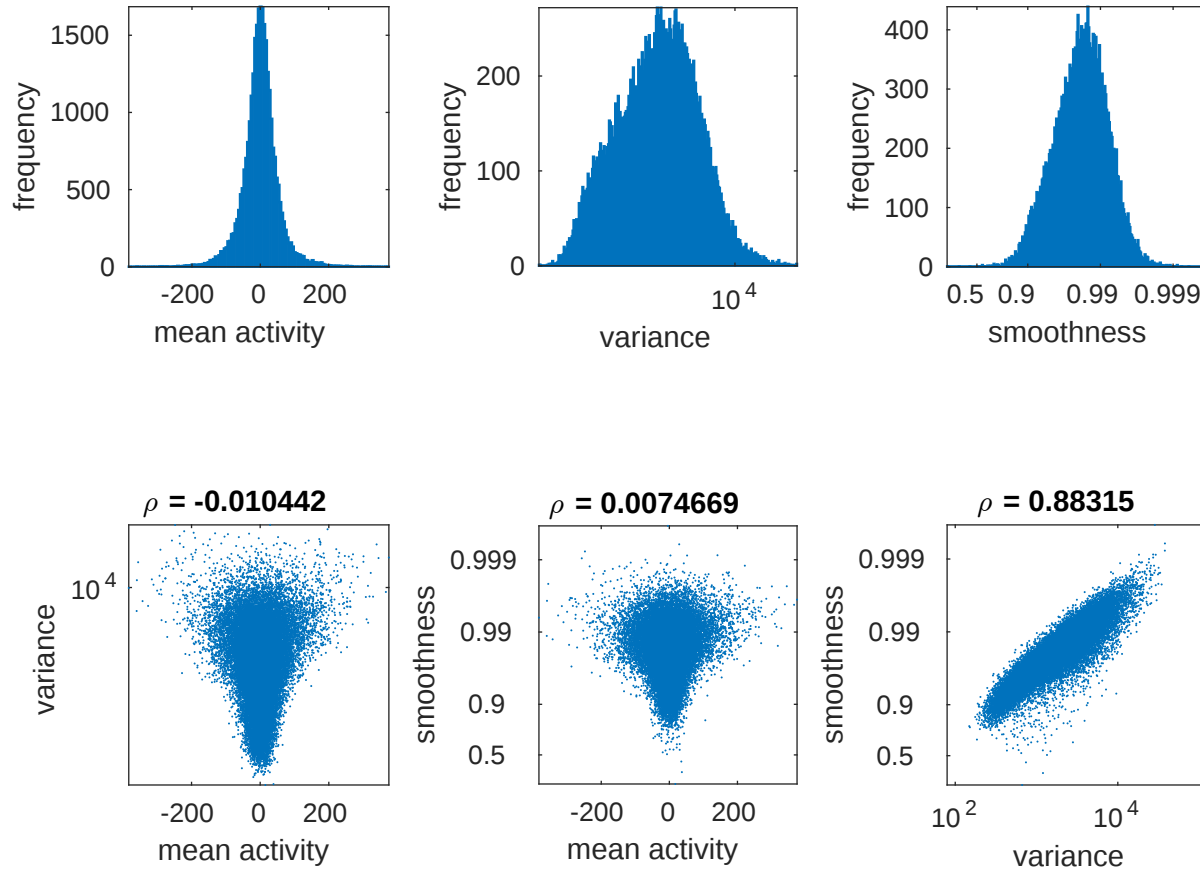
Extended Data Figures

Properties of time-resolved smoothness in human stereotactic EEG



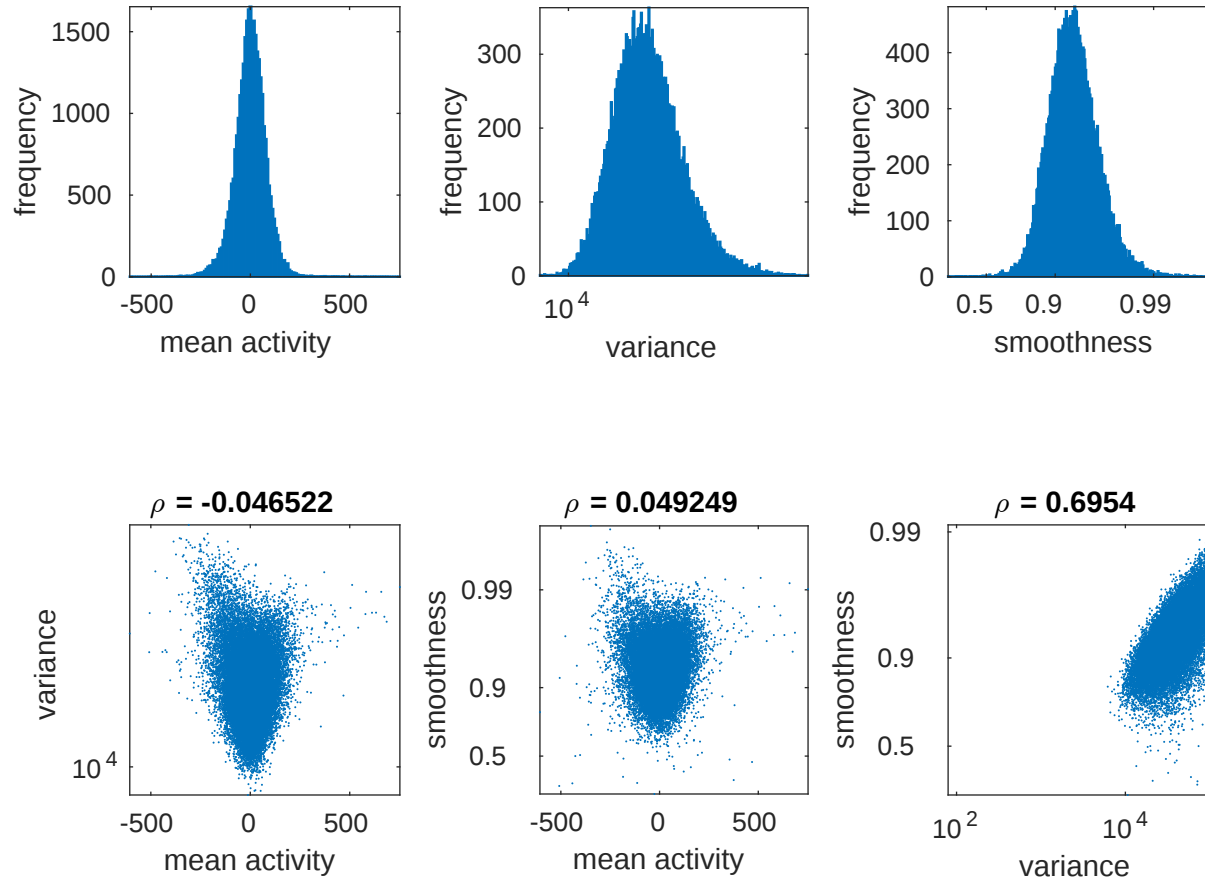
Extended Data Figure 1: Histograms and scatter plots of mean, variance, and time-resolved smoothness for a single representative recording. Note that variance and smoothness are log-transformed. ρ denotes the Spearman correlation coefficient.

Properties of time-resolved smoothness in human electrocorticography



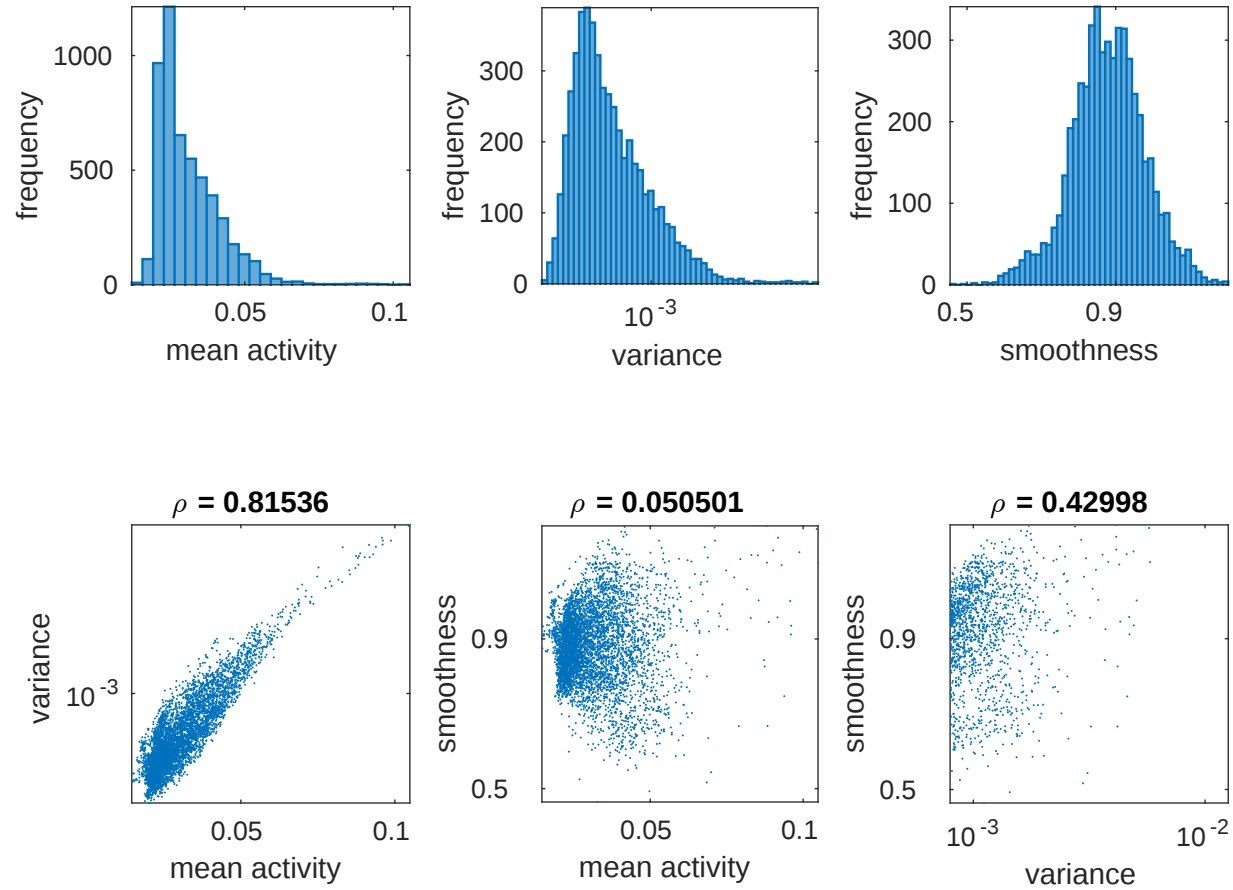
Extended Data Figure 2: Histograms and scatter plots of mean, variance, and time-resolved smoothness for a single representative recording. Note that variance and smoothness are log-transformed. ρ denotes the Spearman correlation coefficient.

Properties of time-resolved smoothness in macaque electrocorticography



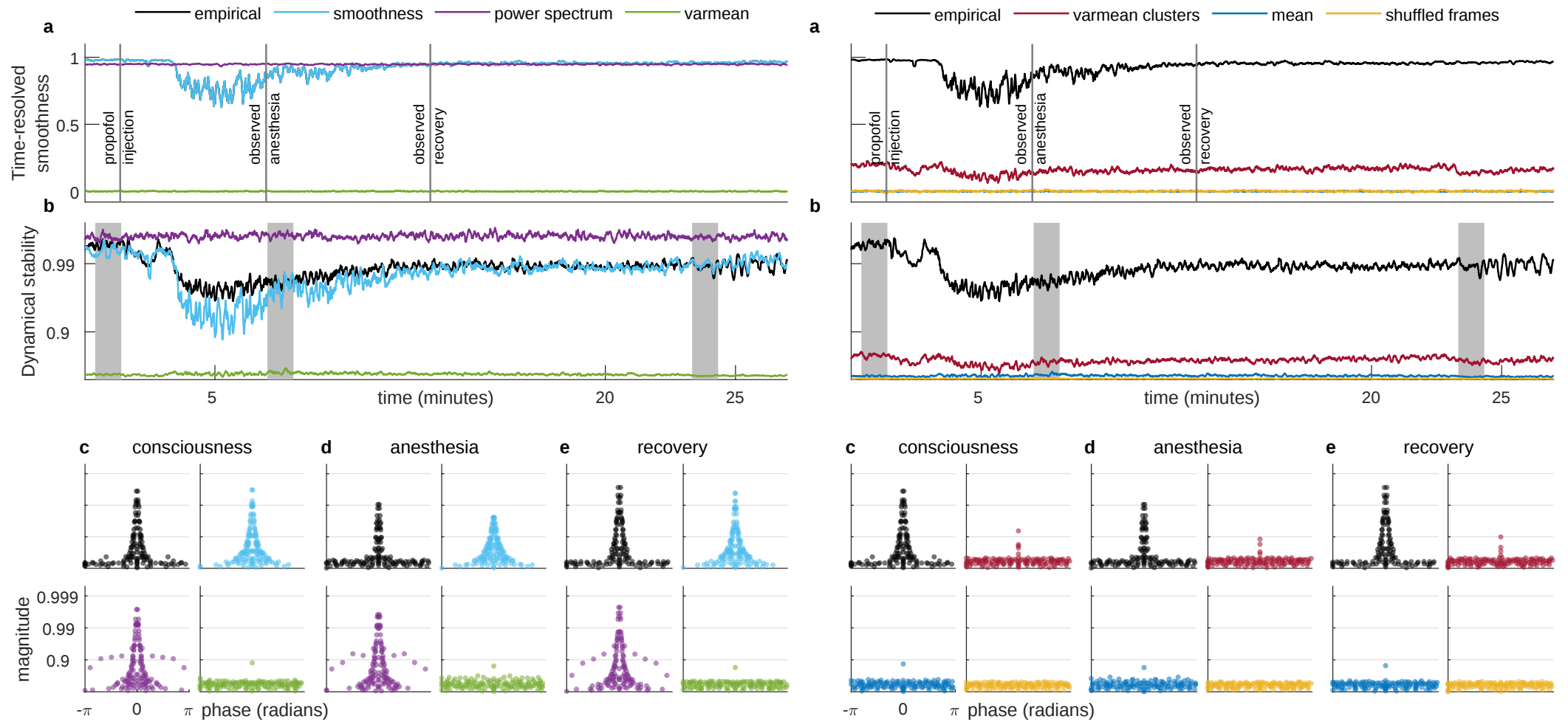
Extended Data Figure 3: Histograms and scatter plots of mean, variance, and time-resolved smoothness for a single representative recording. Note that variance and smoothness are log-transformed. ρ denotes the Spearman correlation coefficient.

Properties of time-resolved smoothness in zebrafish calcium imaging



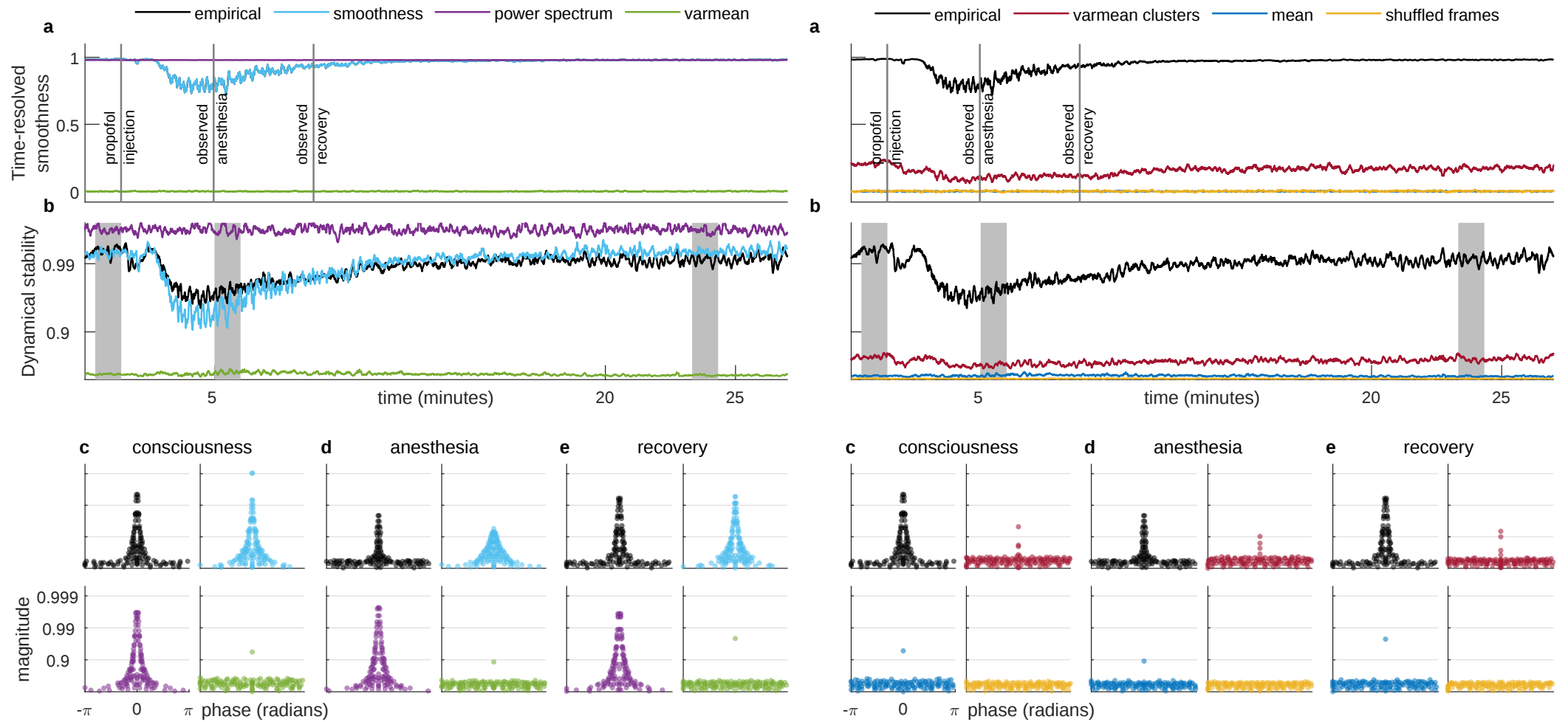
Extended Data Figure 4: Histograms and scatter plots of mean, variance, and time-resolved smoothness for a single representative recording. Note that variance and smoothness are log-transformed. ρ denotes the Spearman correlation coefficient.

Emergent dynamics — macaque 1/session 1



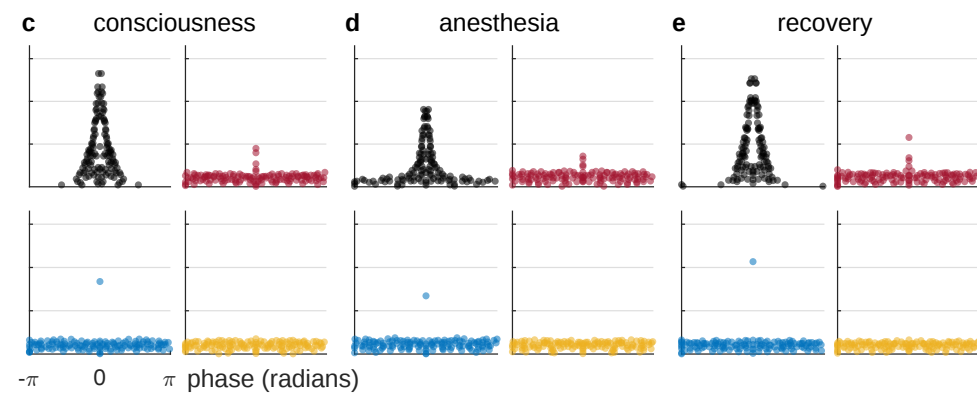
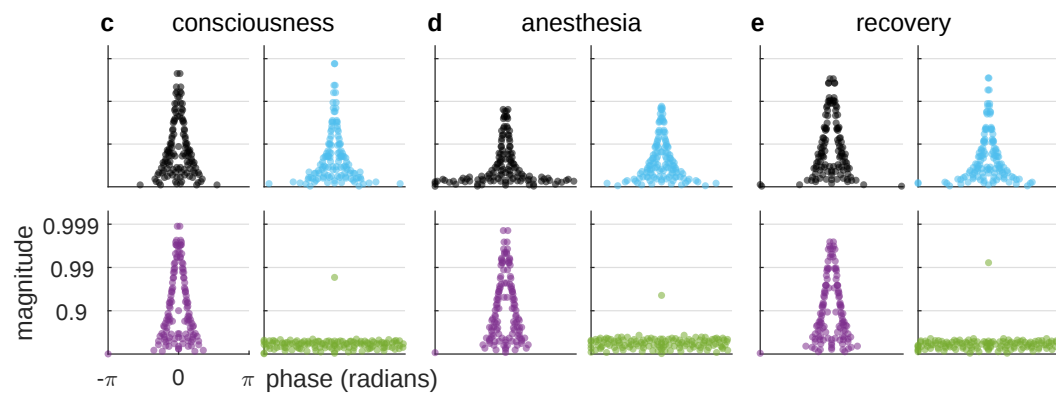
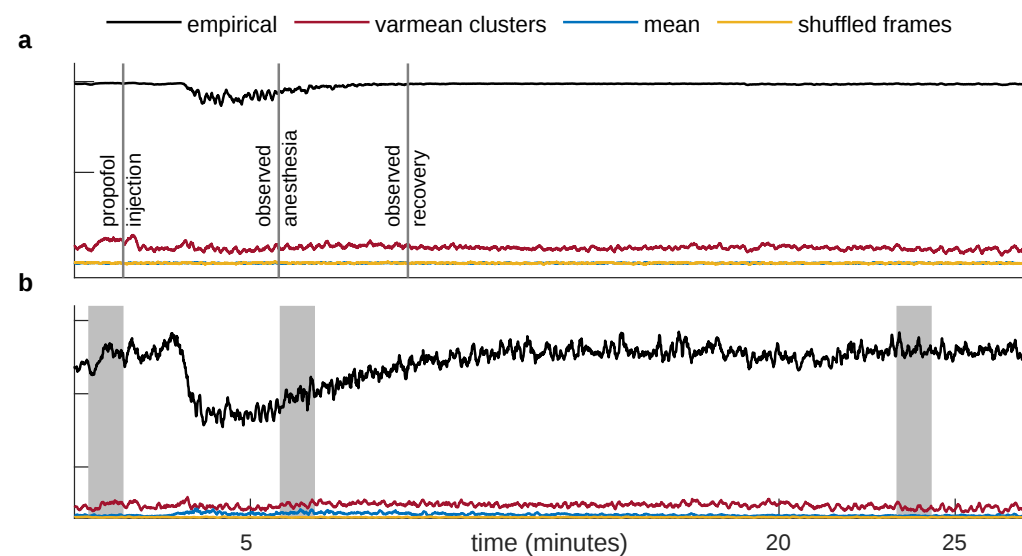
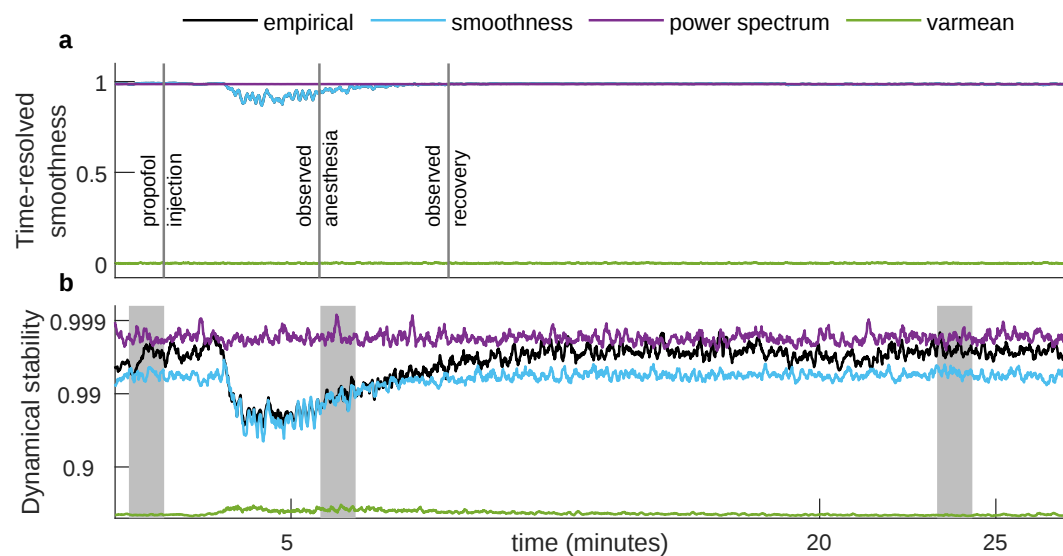
Extended Data Figure 5: See Figure 3 caption in the main text.

Emergent dynamics — macaque 1/session 2



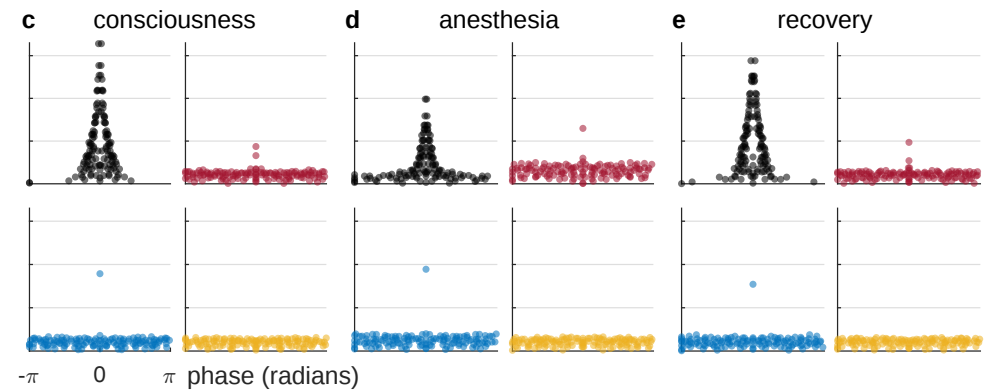
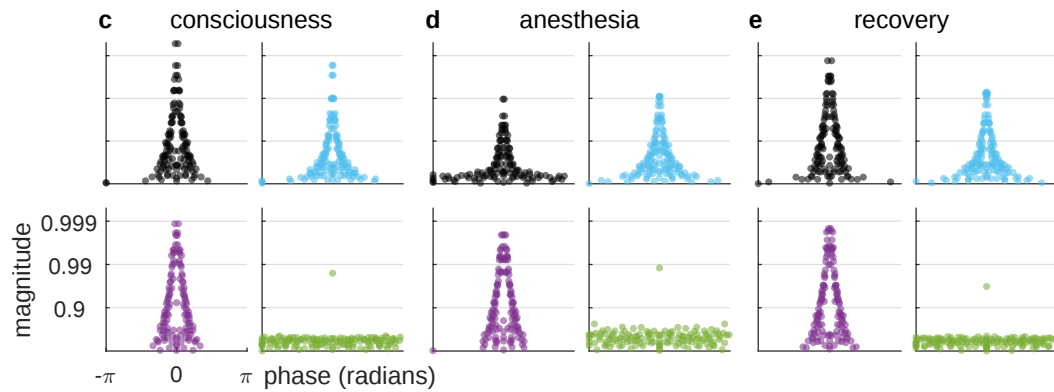
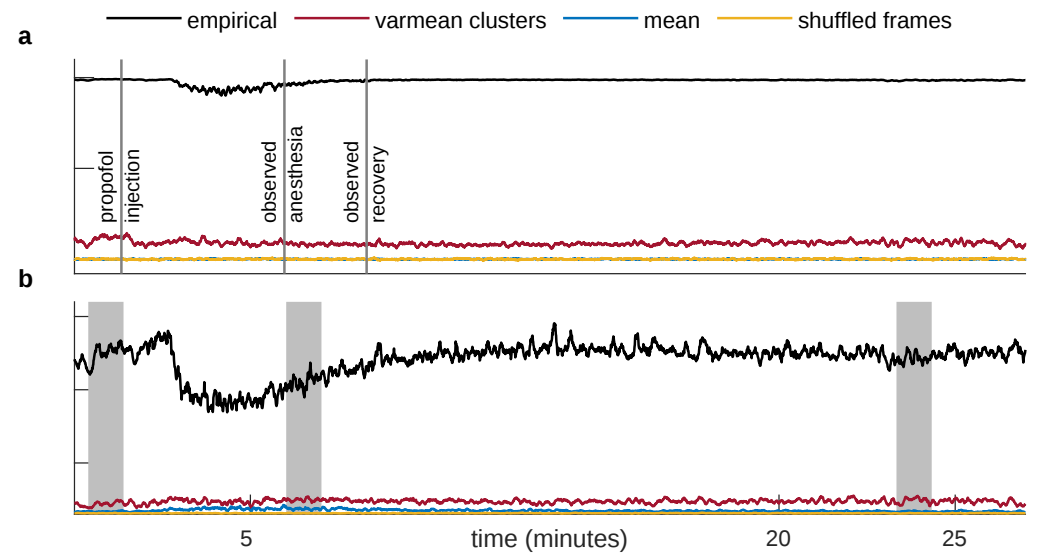
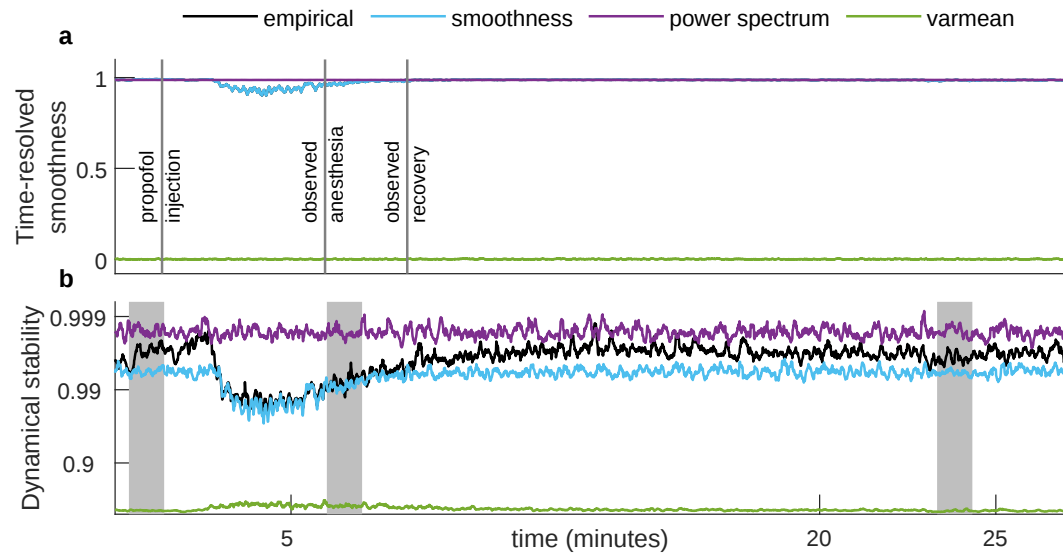
Extended Data Figure 6: See Figure 3 caption in the main text.

Emergent dynamics — macaque 2/session 1



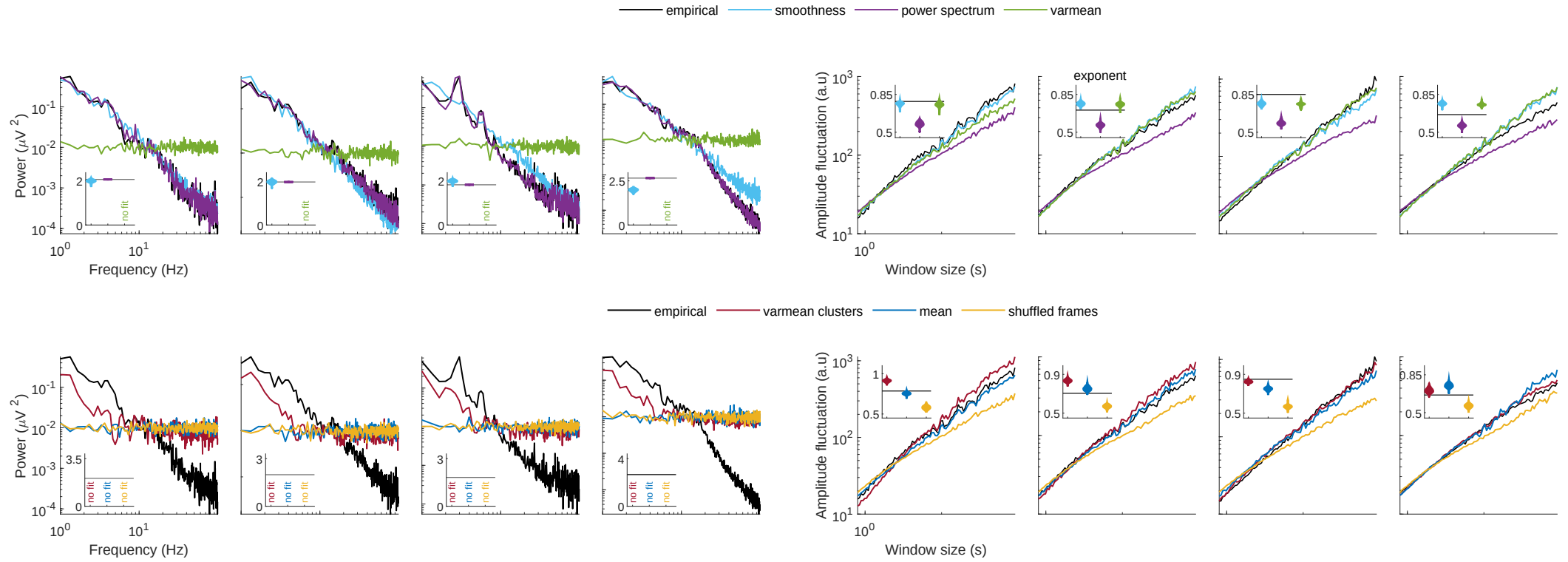
Extended Data Figure 7: See Figure 3 caption in the main text.

Emergent dynamics — macaque 2/session 2



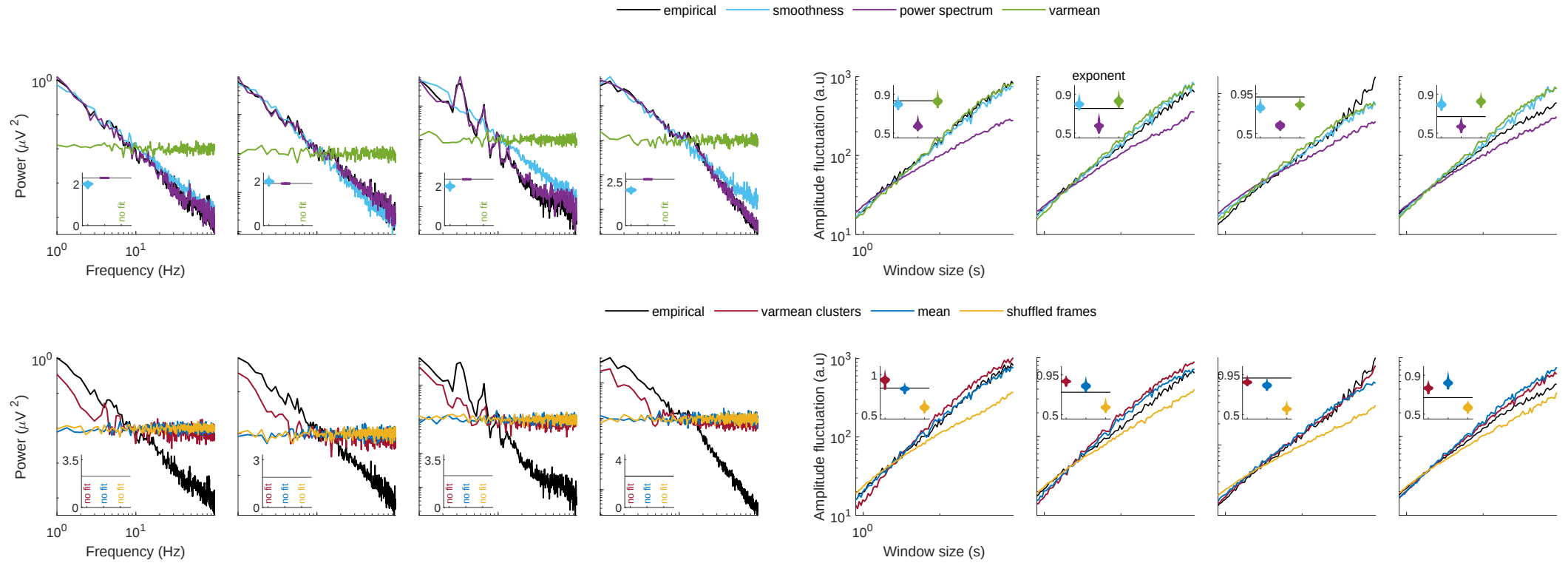
Extended Data Figure 8: See Figure 3 caption in the main text.

Scale-free statistics — macaque 1/session 1



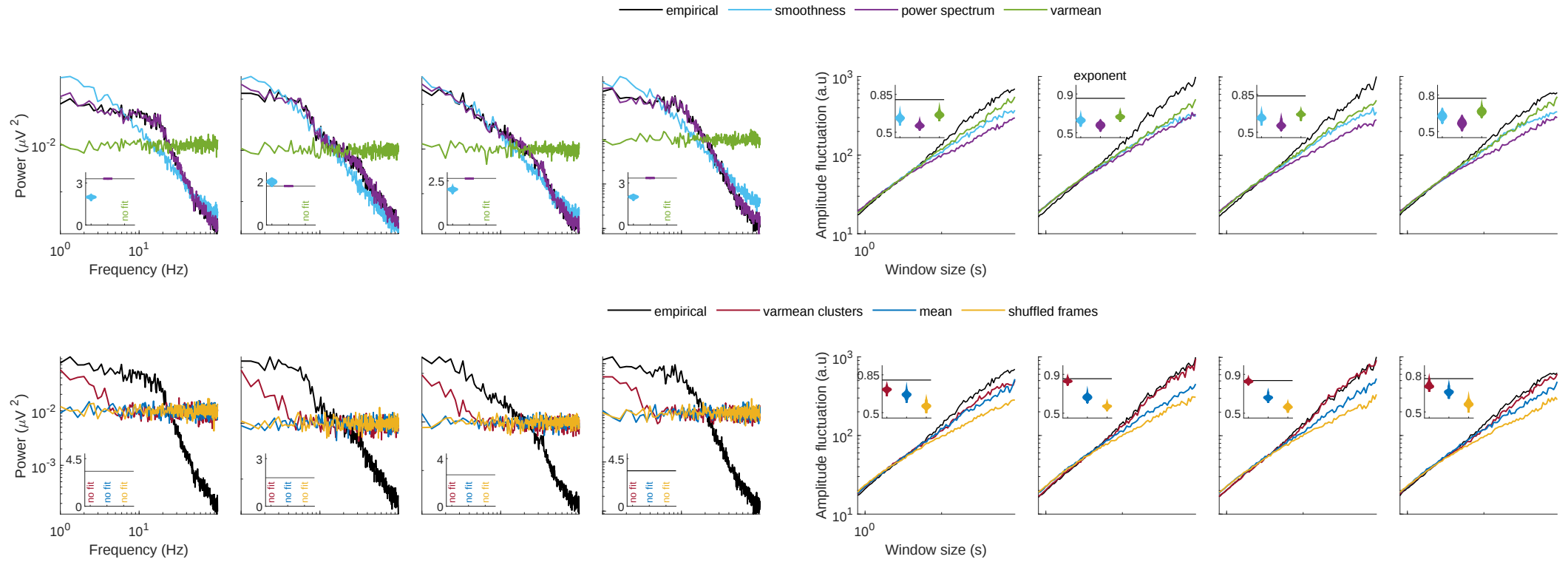
Extended Data Figure 9: See Figure 4 caption in the main text.

Scale-free statistics — macaque 1/session 2



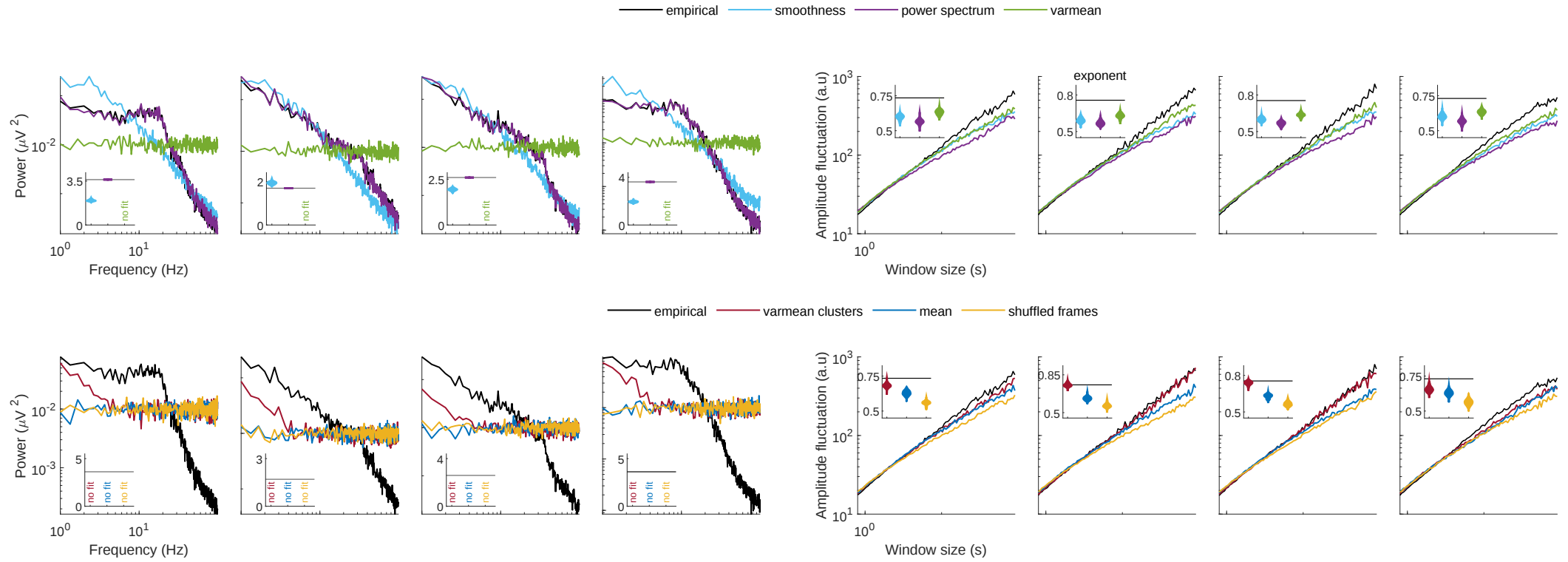
Extended Data Figure 10: See Figure 4 caption in the main text.

Scale-free statistics — macaque 2/session 1



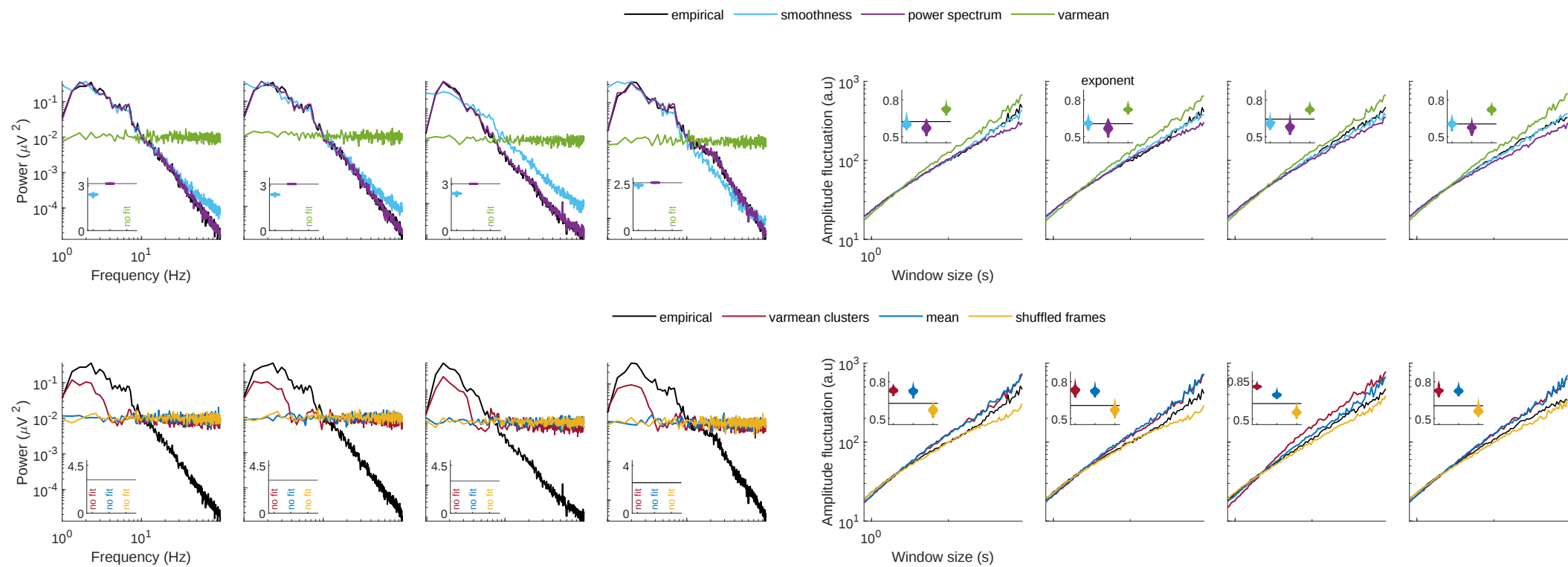
Extended Data Figure 11: See Figure 4 caption in the main text.

Scale-free statistics — macaque 2/session 2



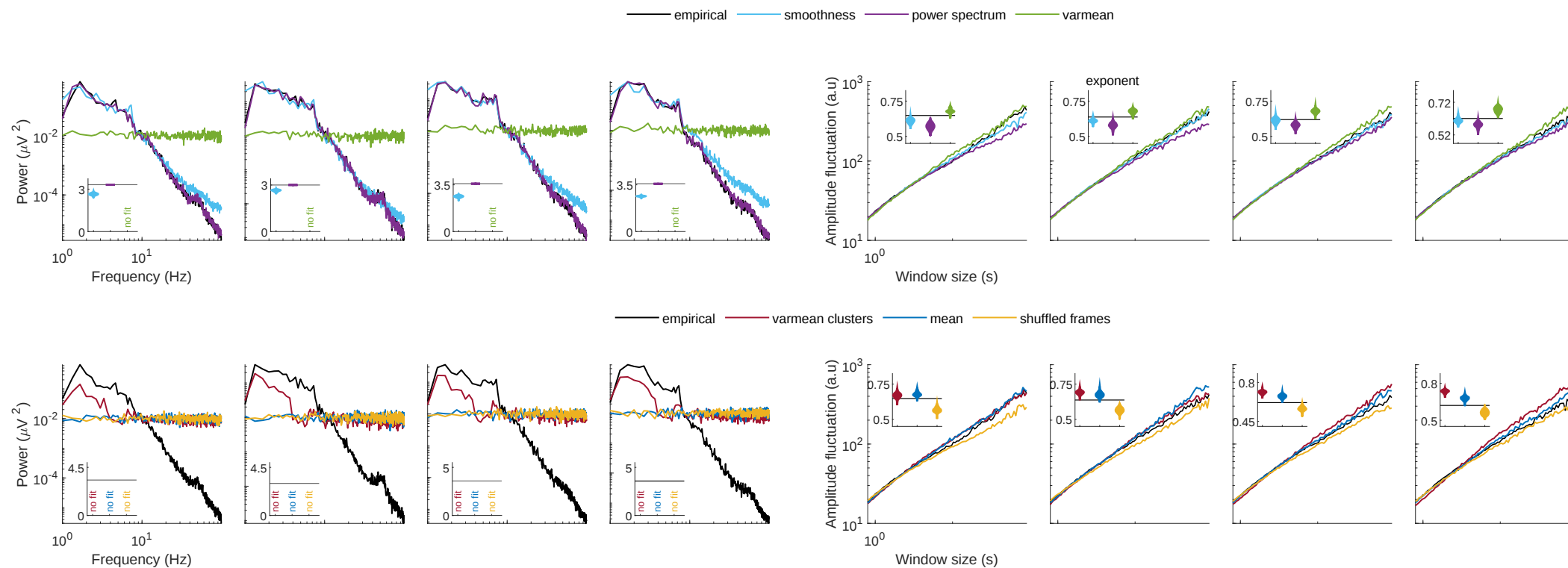
Extended Data Figure 12: See Figure 4 caption in the main text.

Scale-free statistics — human electrocortigraphy dataset 1



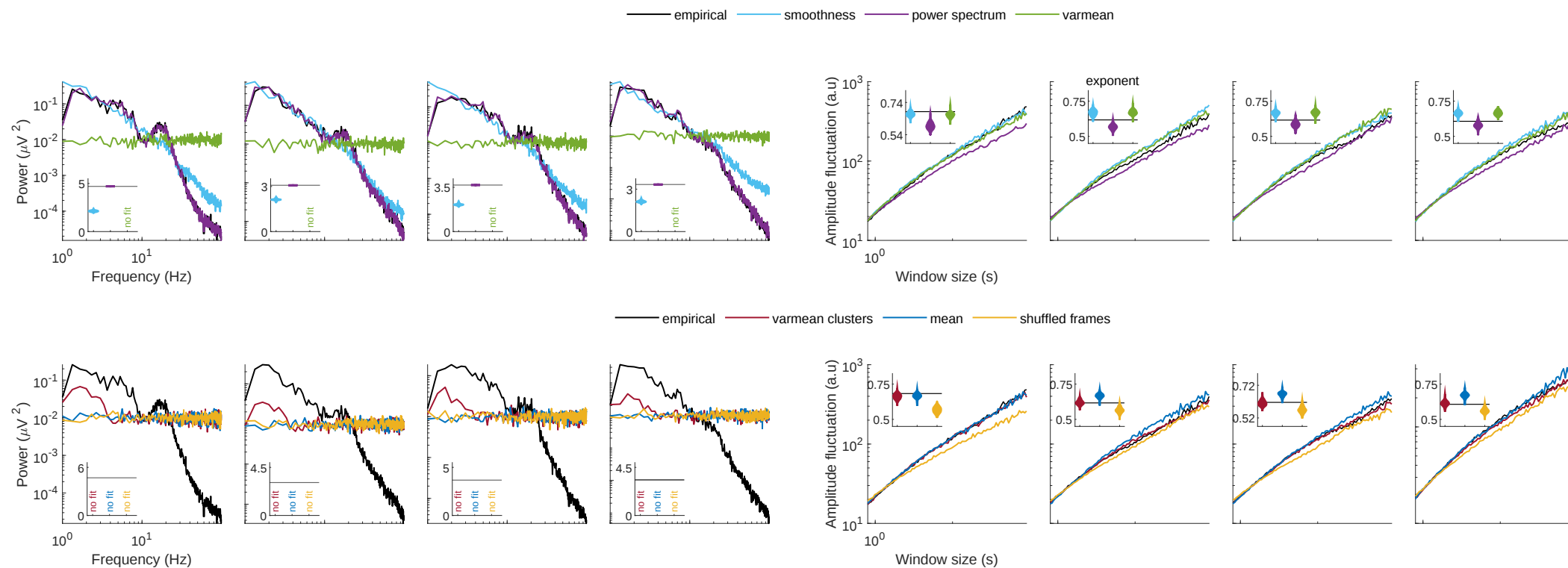
Extended Data Figure 13: See Figure 4 caption in the main text.

Scale-free statistics — human electrocortigraphy dataset 2



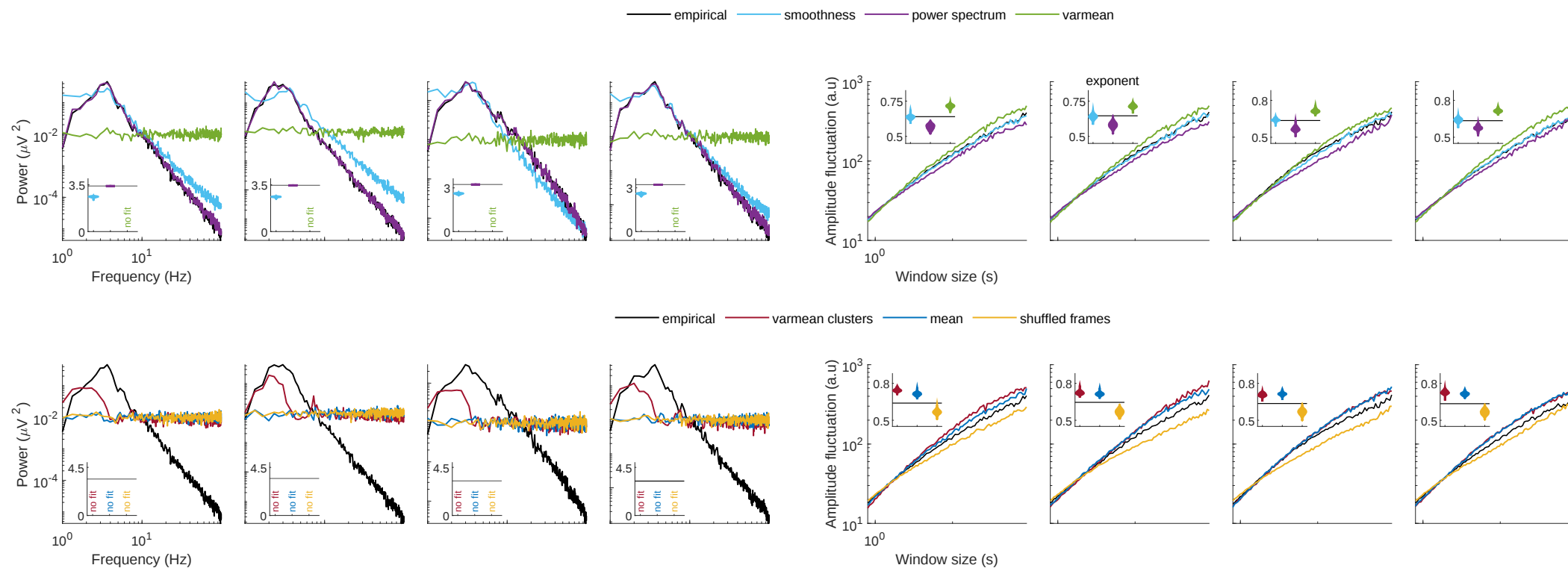
Extended Data Figure 14: See Figure 4 caption in the main text.

Scale-free statistics — human electrocortigraphy dataset 3



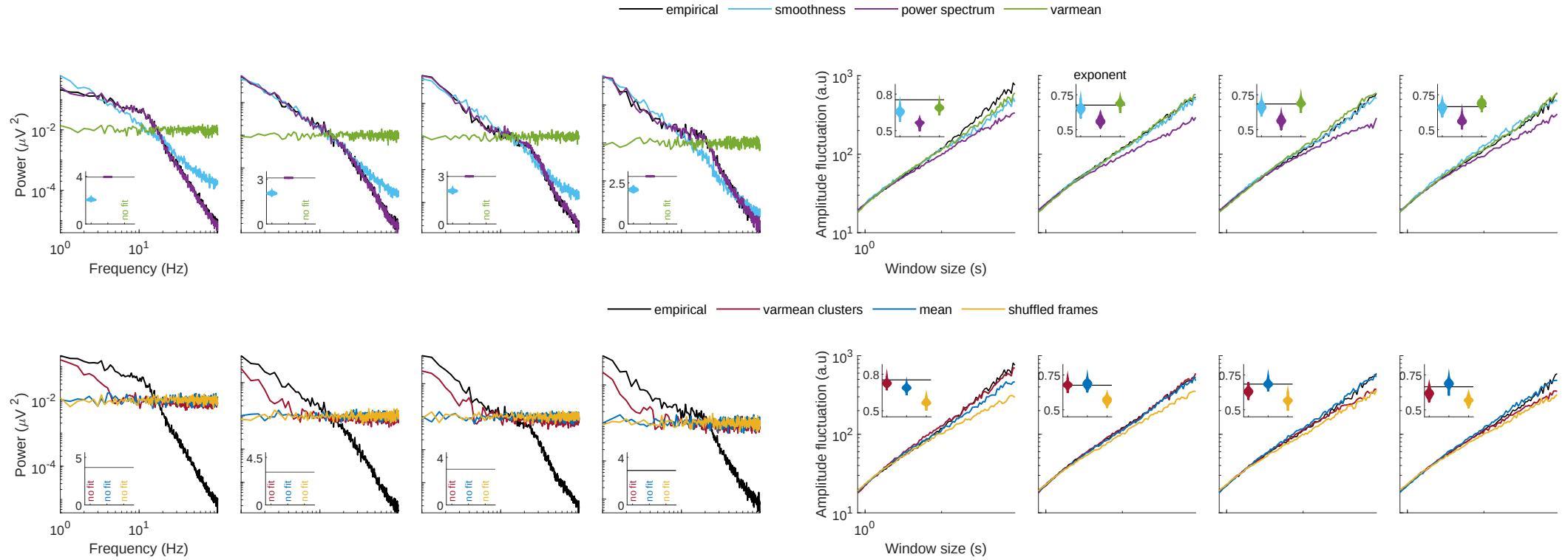
Extended Data Figure 15: See Figure 4 caption in the main text.

Scale-free statistics — human electrocortigraphy dataset 4



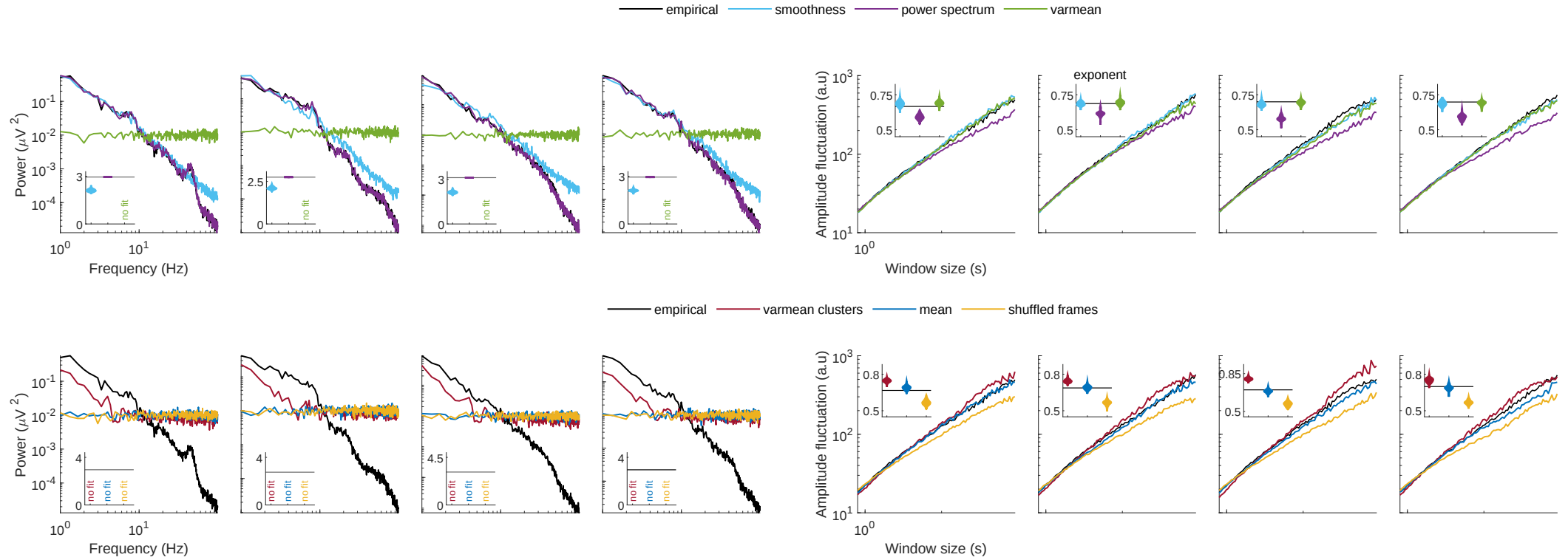
Extended Data Figure 16: See Figure 4 caption in the main text.

Scale-free statistics — human stereotactic EEG dataset 1



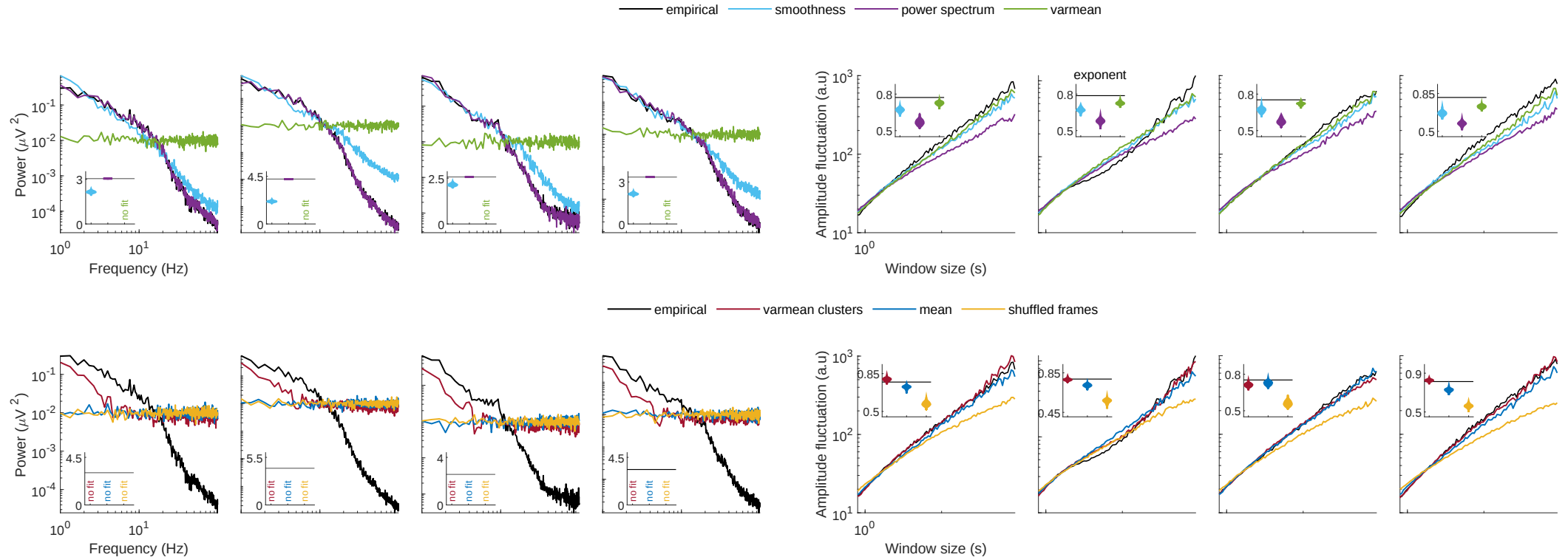
Extended Data Figure 17: See Figure 4 caption in the main text.

Scale-free statistics — human stereotactic EEG dataset 2



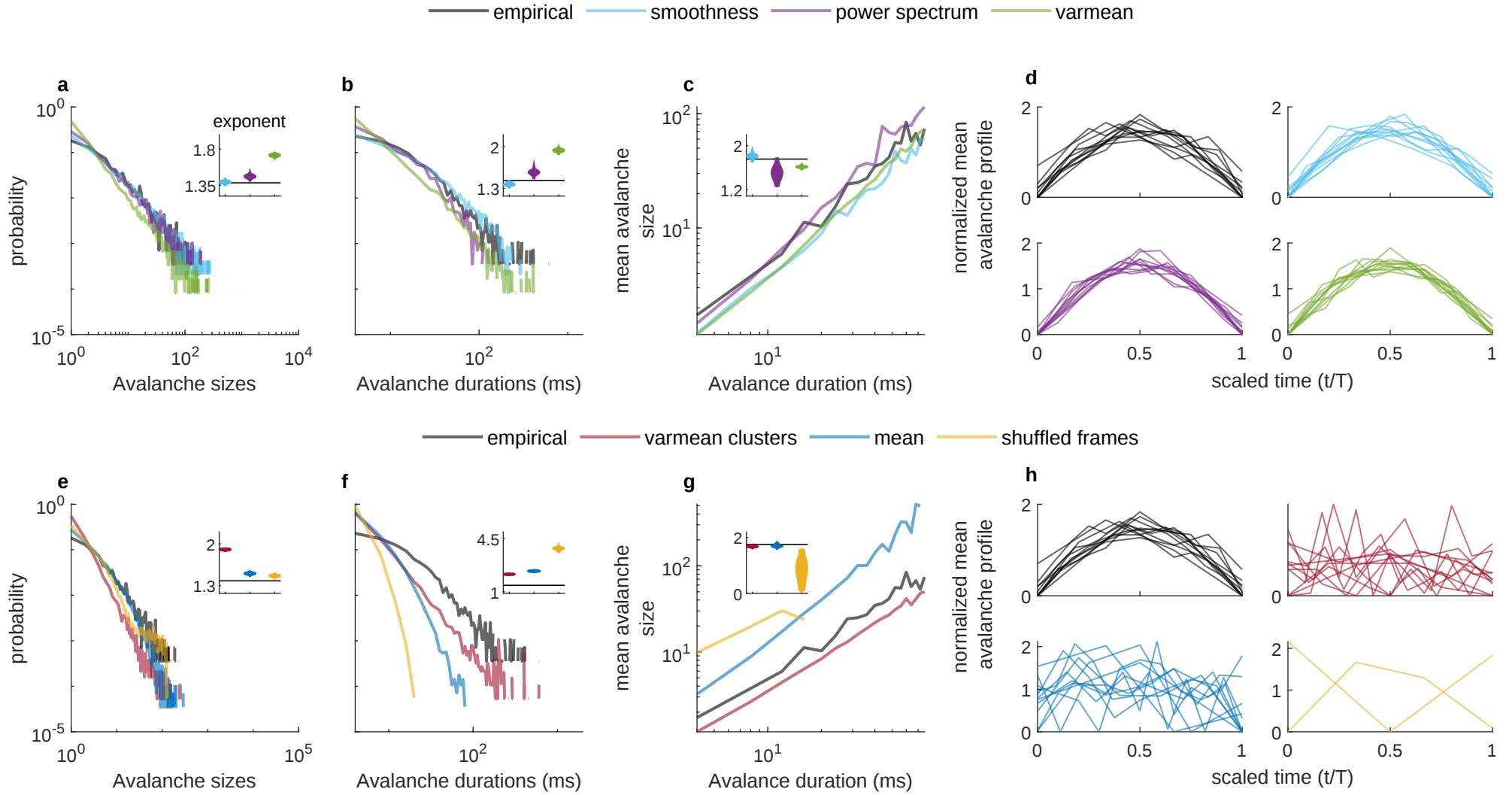
Extended Data Figure 18: See Figure 4 caption in the main text.

Scale-free statistics — human stereotactic EEG dataset 3



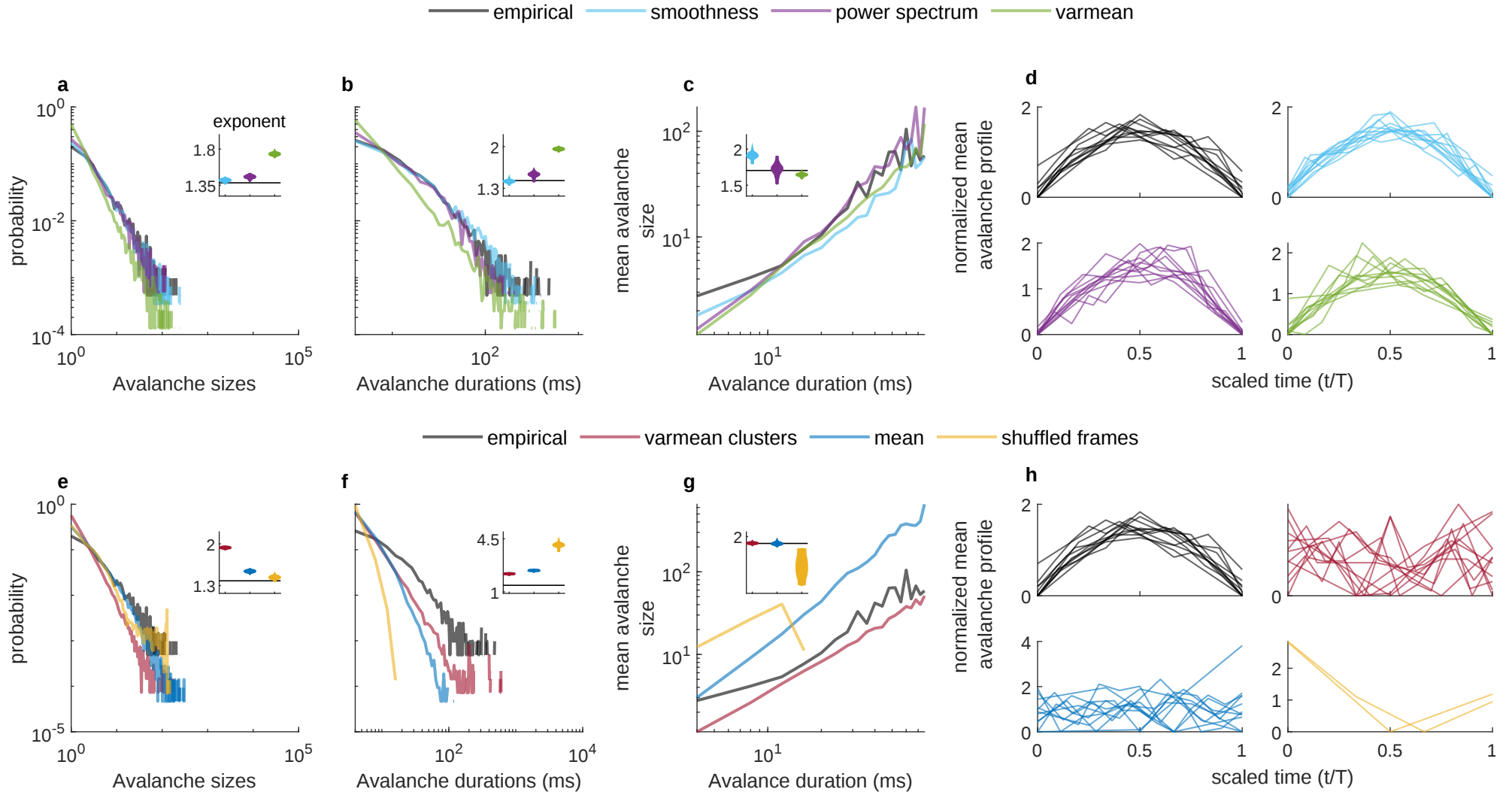
Extended Data Figure 19: See Figure 4 caption in the main text.

Avalanche statistics — macaque 1/session 1



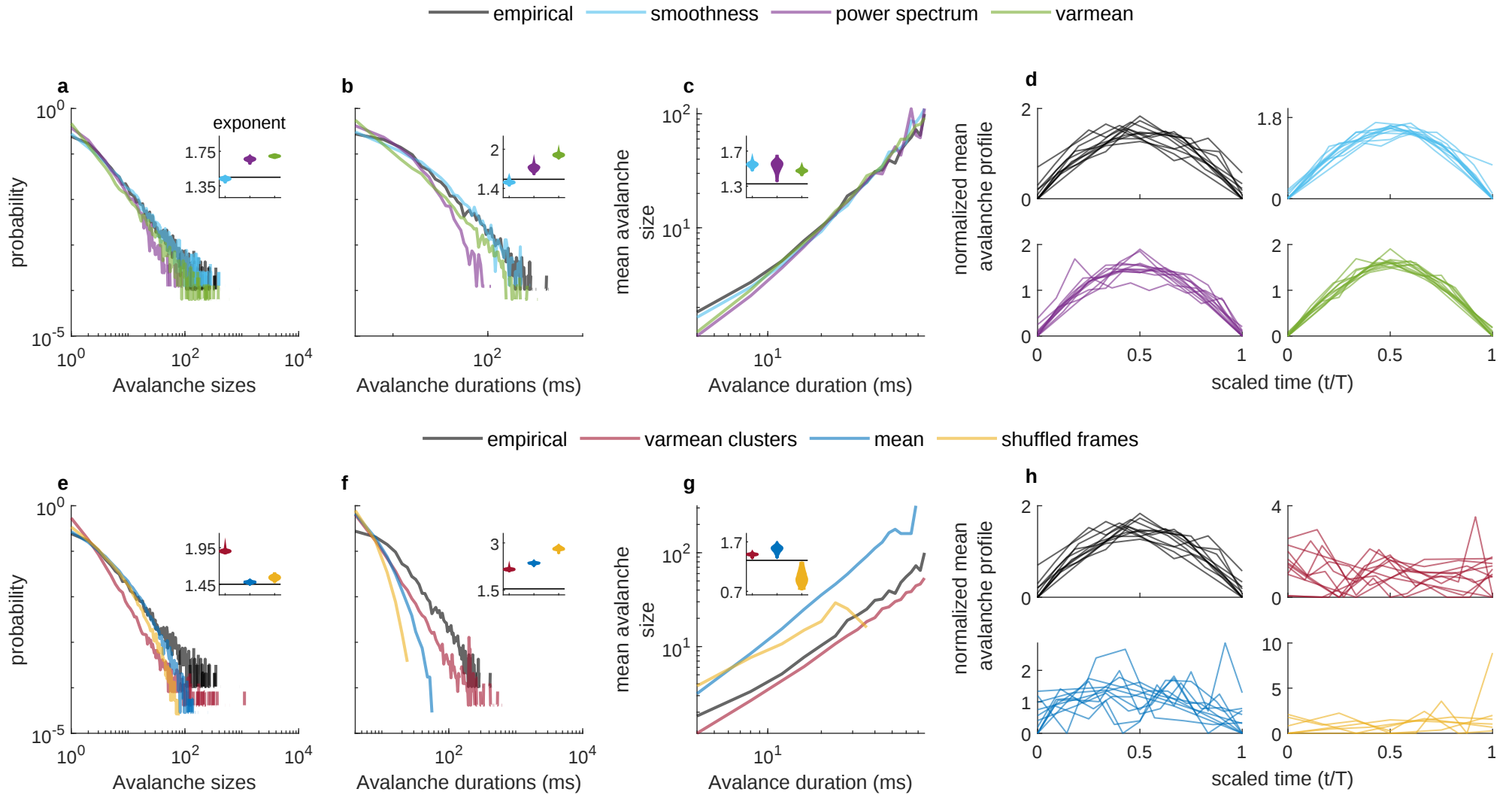
Extended Data Figure 20: See Figures 5-6 caption in the main text.

Avalanche statistics — macaque 1/session 2



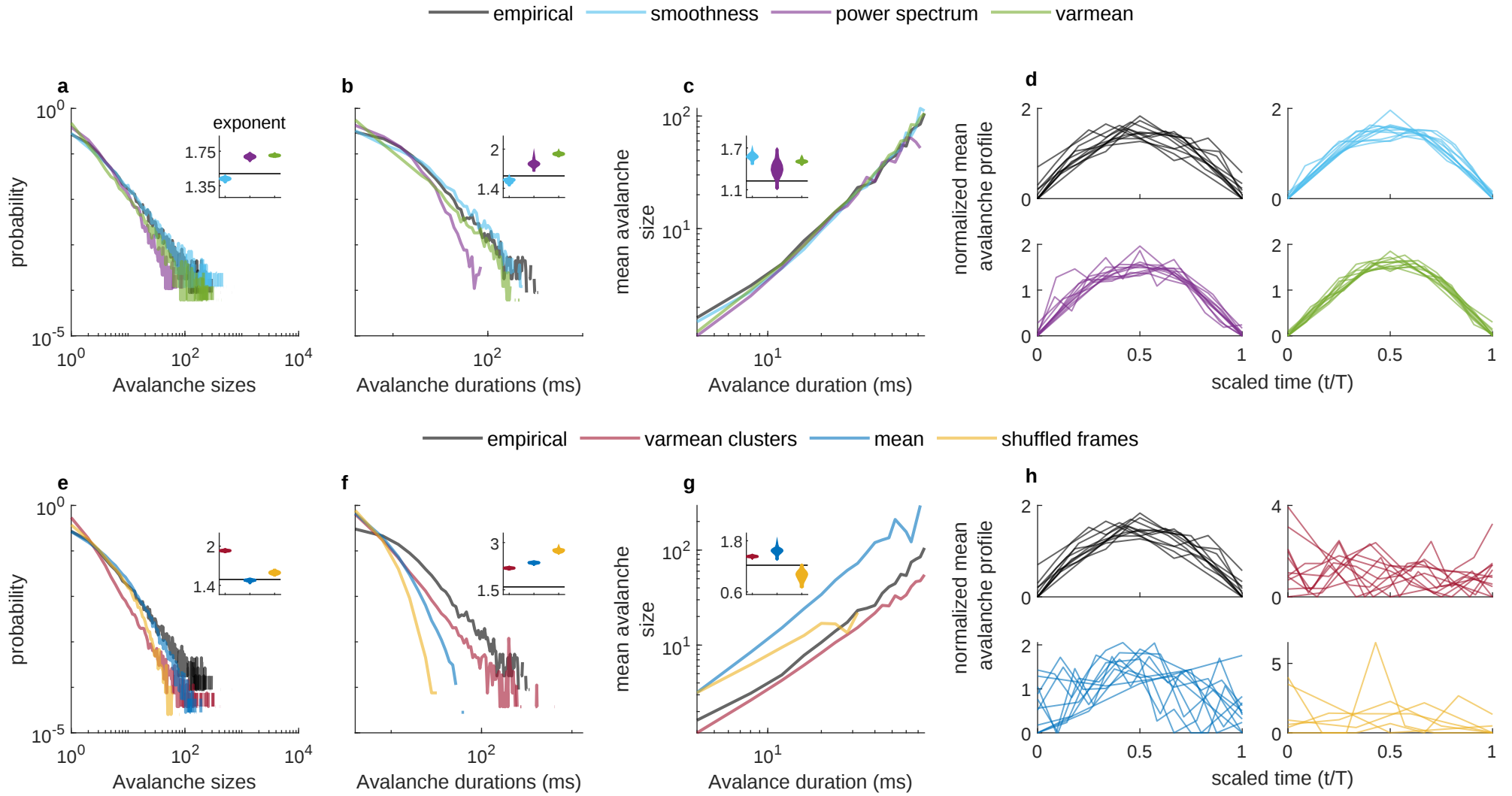
Extended Data Figure 21: See Figures 5-6 caption in the main text.

Avalanche statistics — macaque 2/session 1



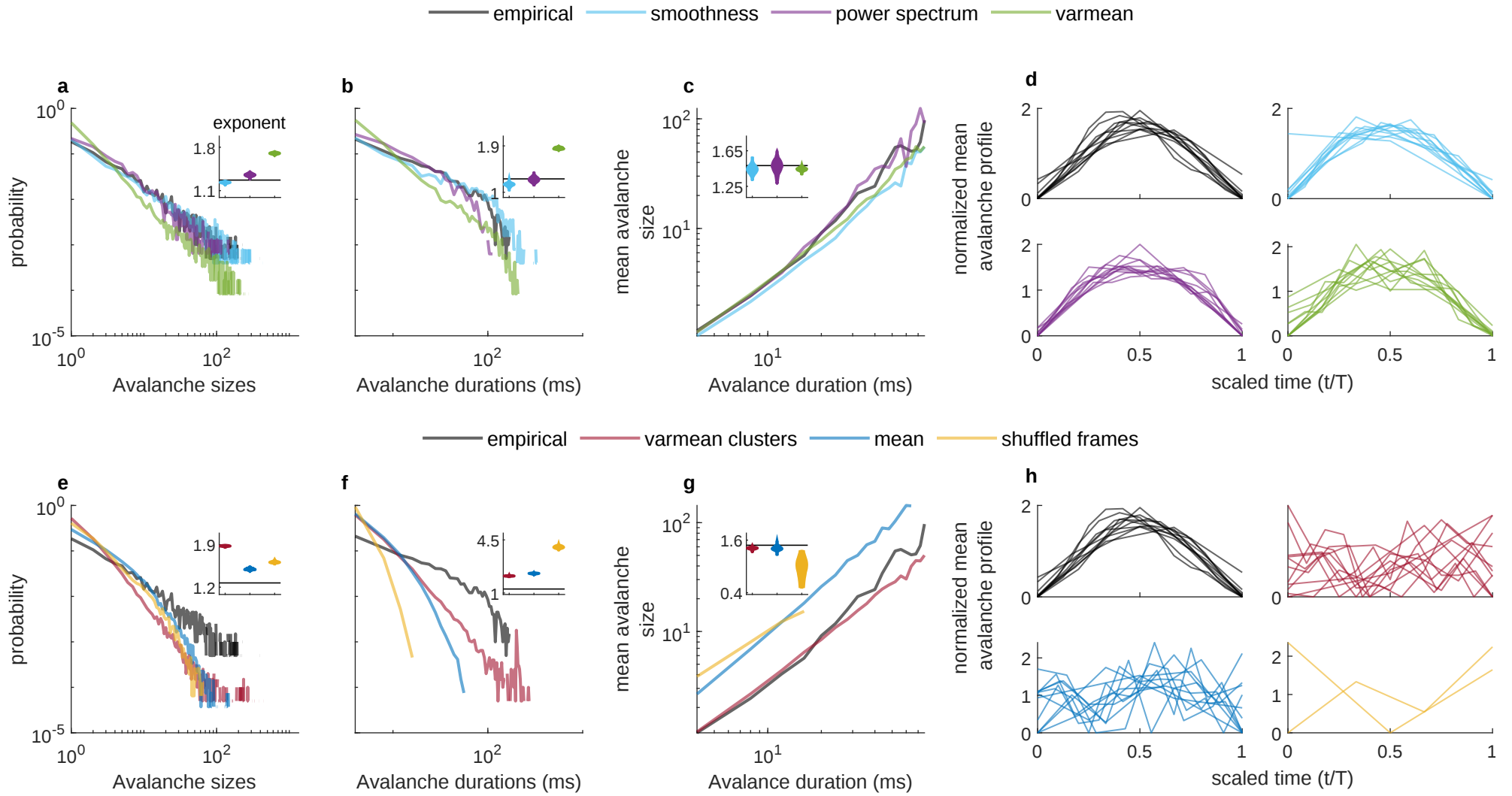
Extended Data Figure 22: See Figures 5-6 caption in the main text.

Avalanche statistics — macaque 2/session 2



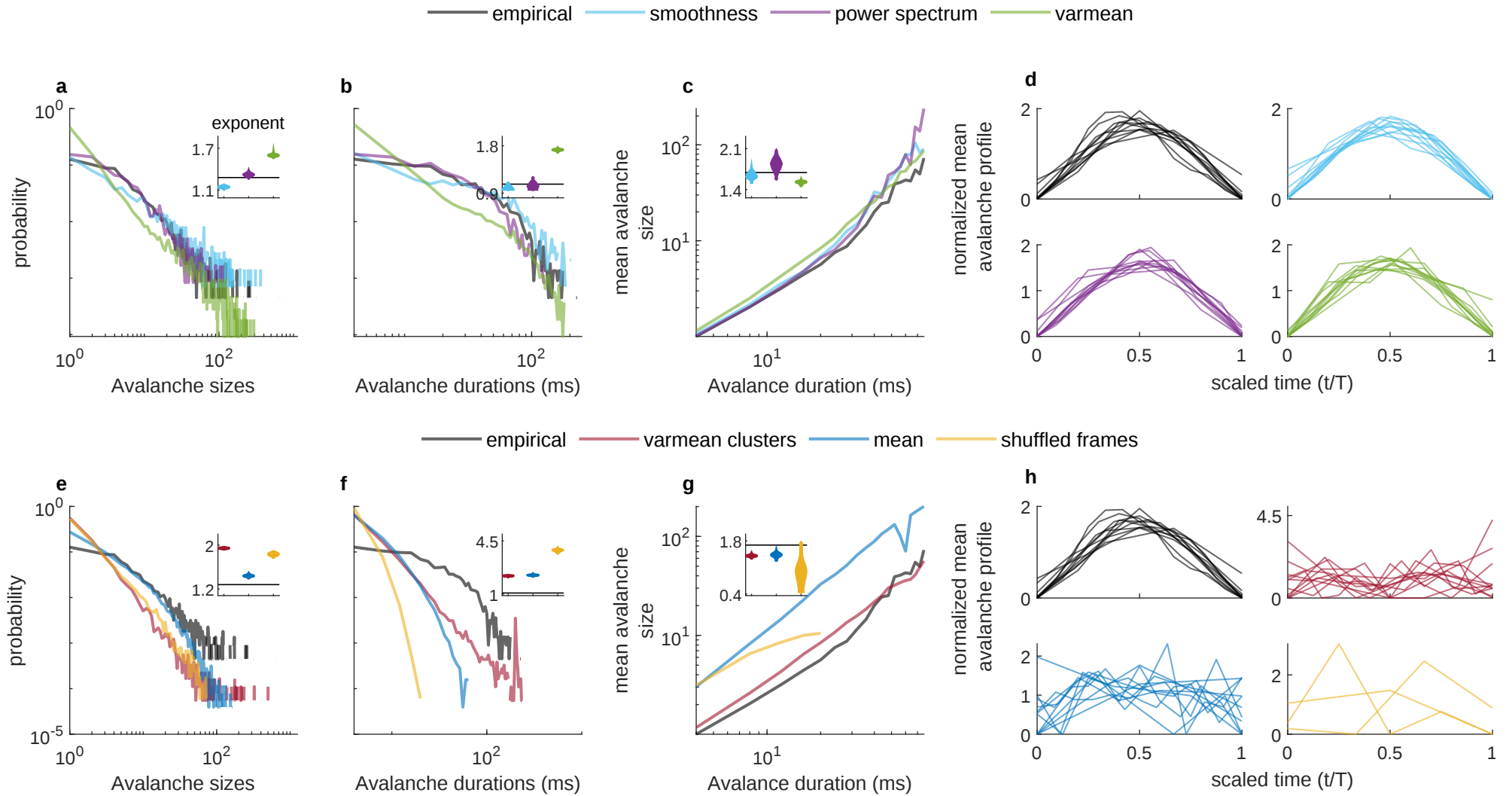
Extended Data Figure 23: See Figures 5-6 caption in the main text.

Avalanche statistics — human electrocorticography dataset 1



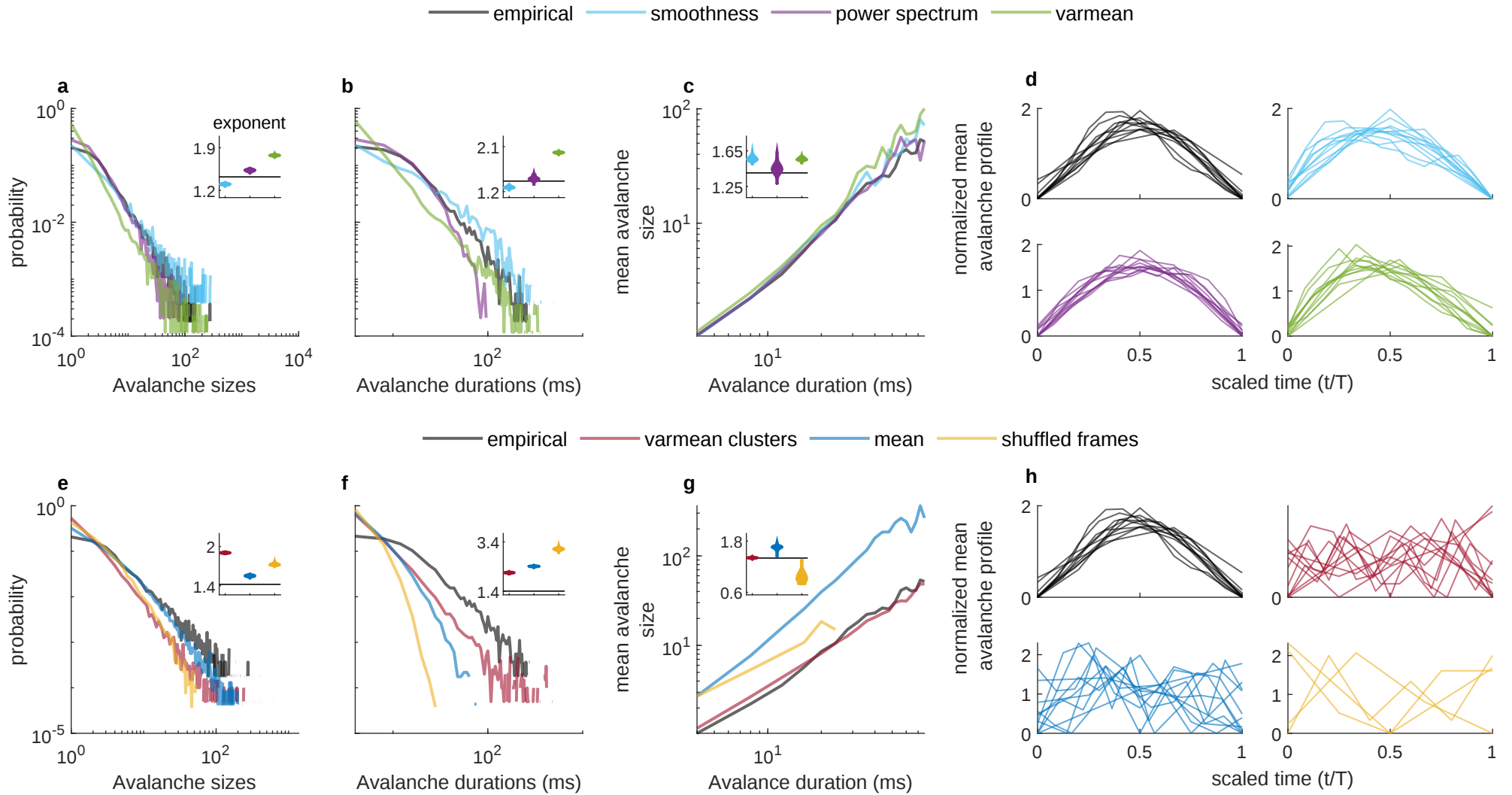
Extended Data Figure 24: See Figures 5-6 caption in the main text.

Avalanche statistics — human electrocorticography dataset 2



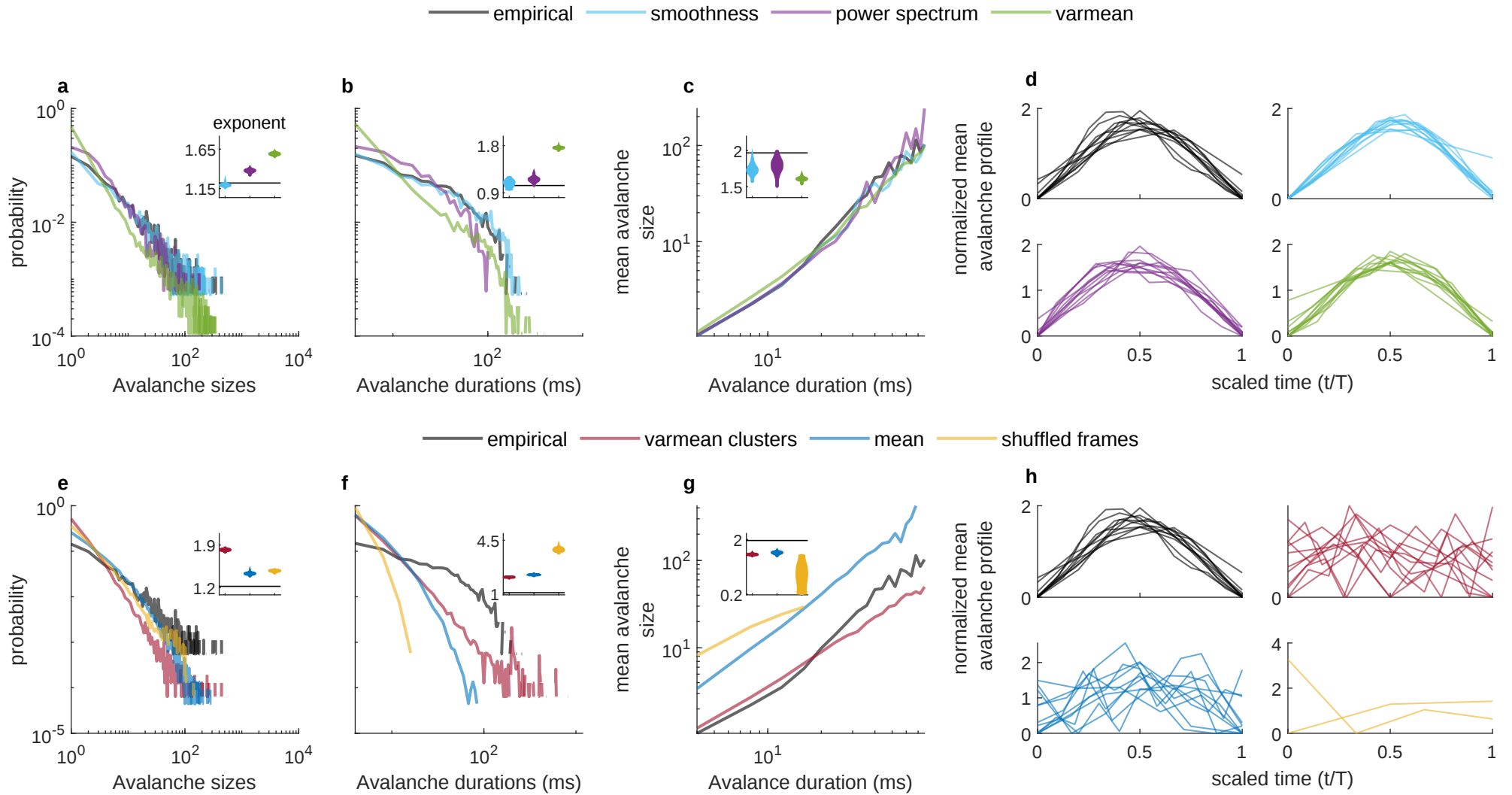
Extended Data Figure 25: See Figures 5-6 caption in the main text.

Avalanche statistics — human electrocorticography dataset 3



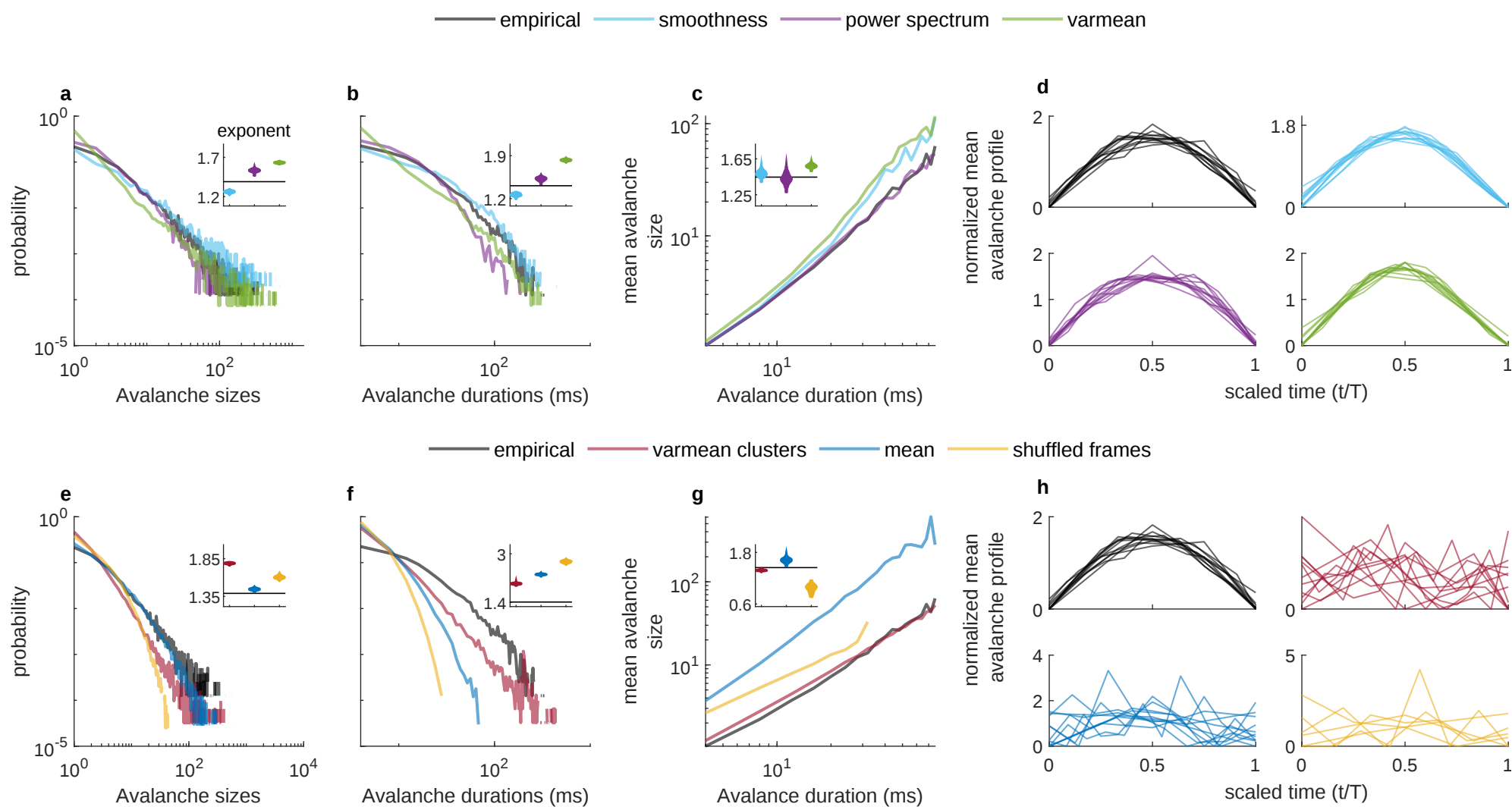
Extended Data Figure 26: See Figures 5-6 caption in the main text.

Avalanche statistics — human electrocorticography dataset 4



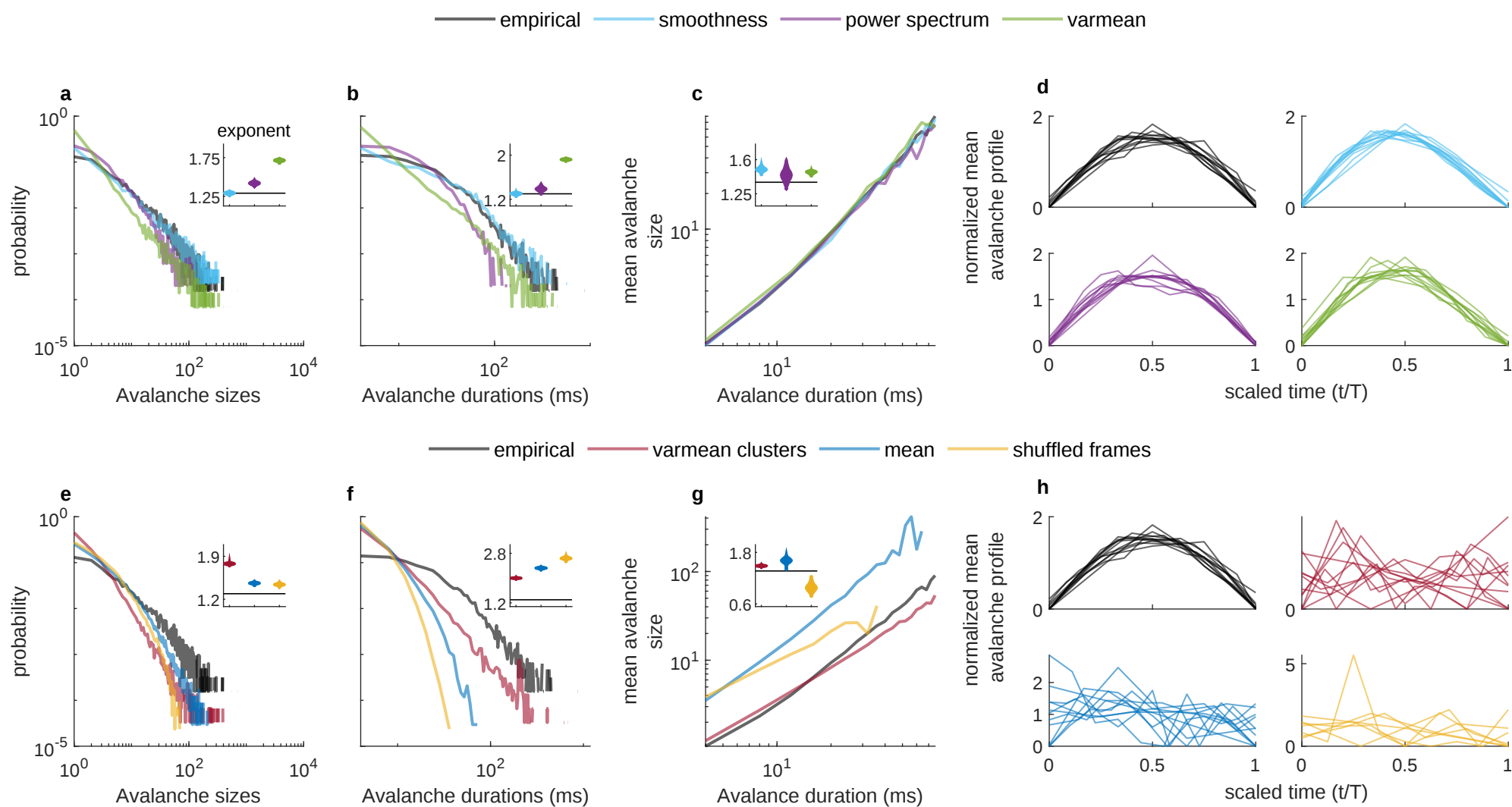
Extended Data Figure 27: See Figures 5-6 caption in the main text.

Avalanche statistics — human stereotactic EEG dataset 1



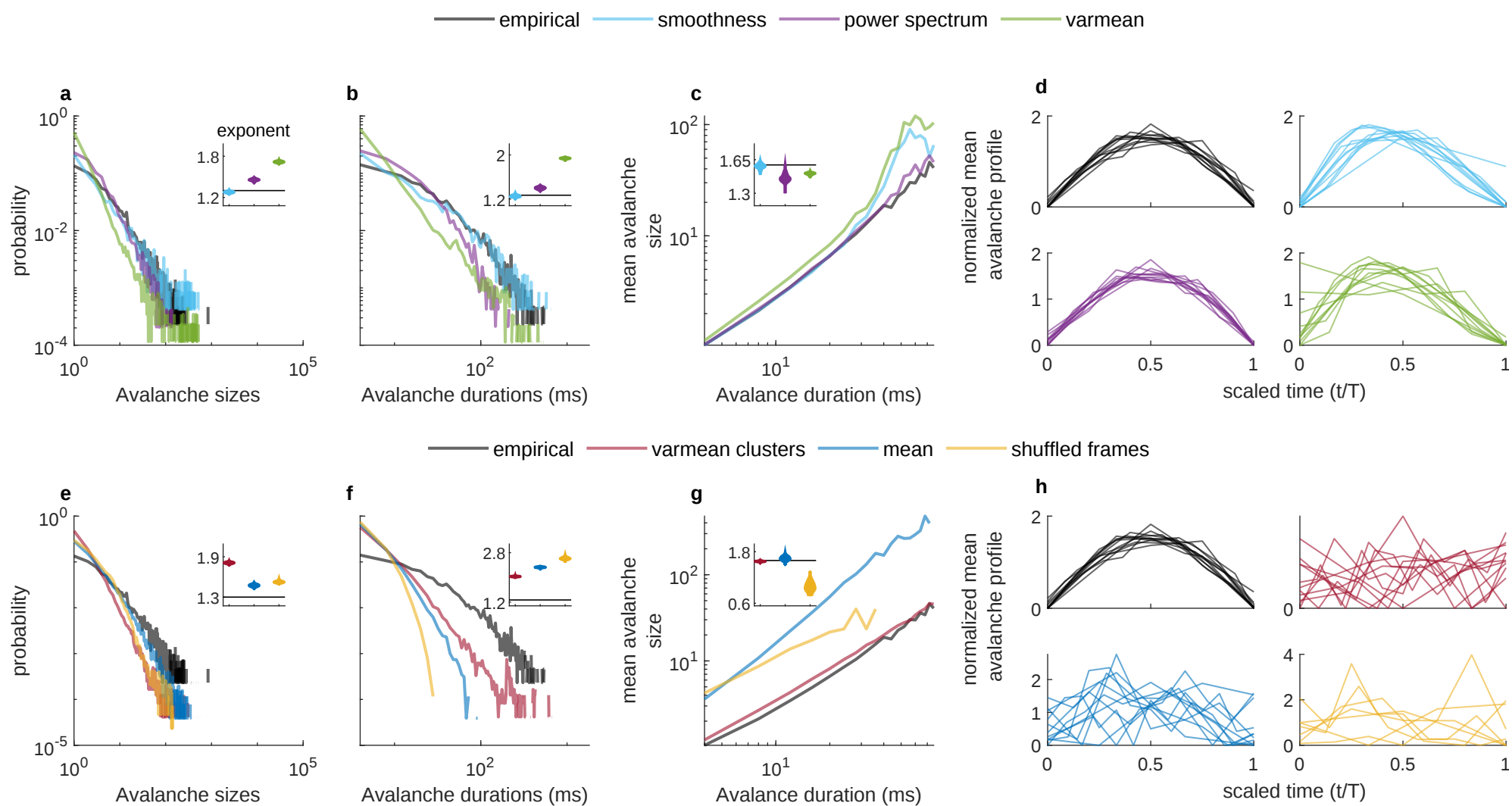
Extended Data Figure 28: See Figures 5-6 caption in the main text.

Avalanche statistics — human stereotactic EEG dataset 2



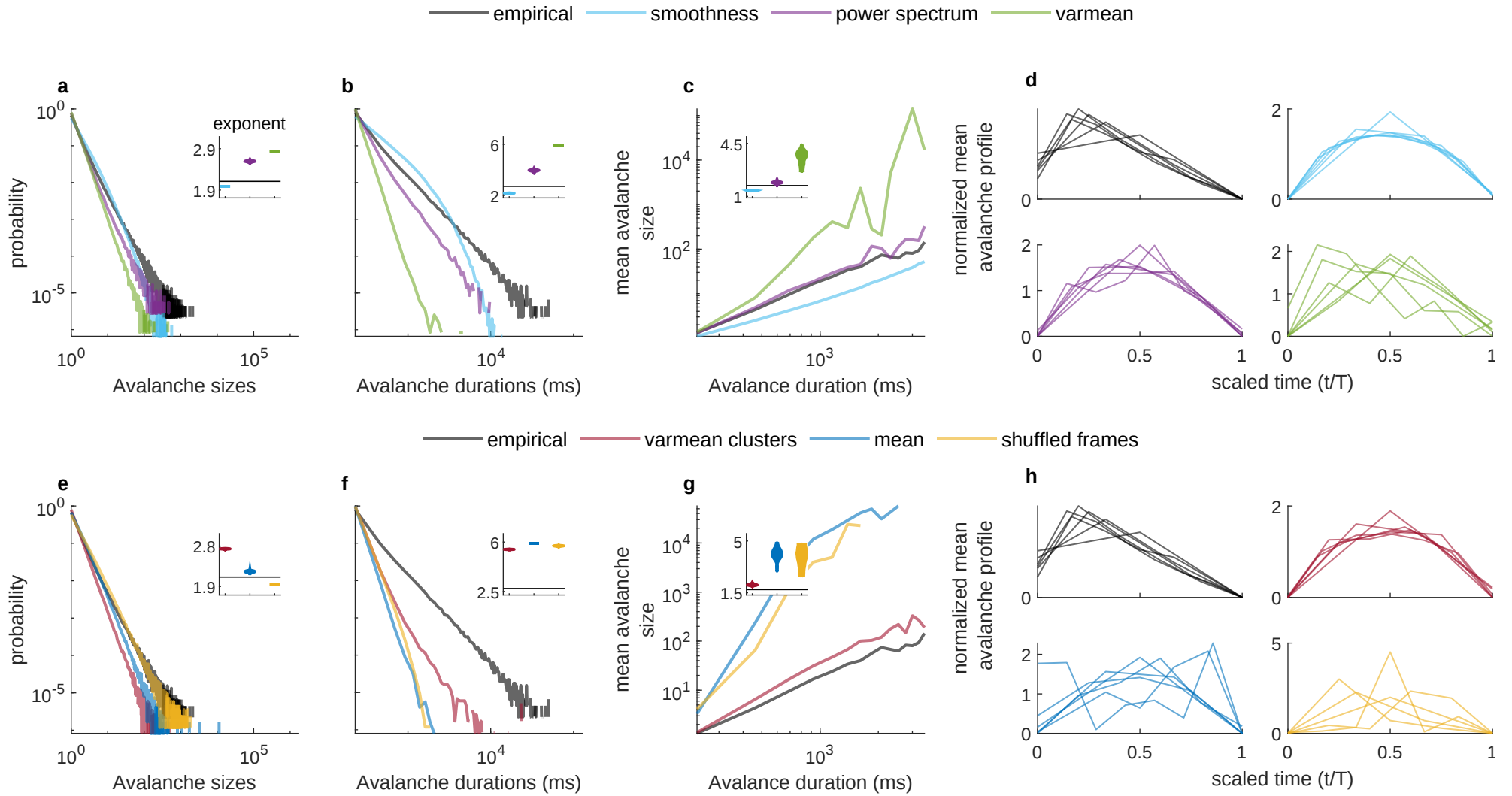
Extended Data Figure 29: See Figures 5-6 caption in the main text.

Avalanche statistics — human stereotactic EEG dataset 3



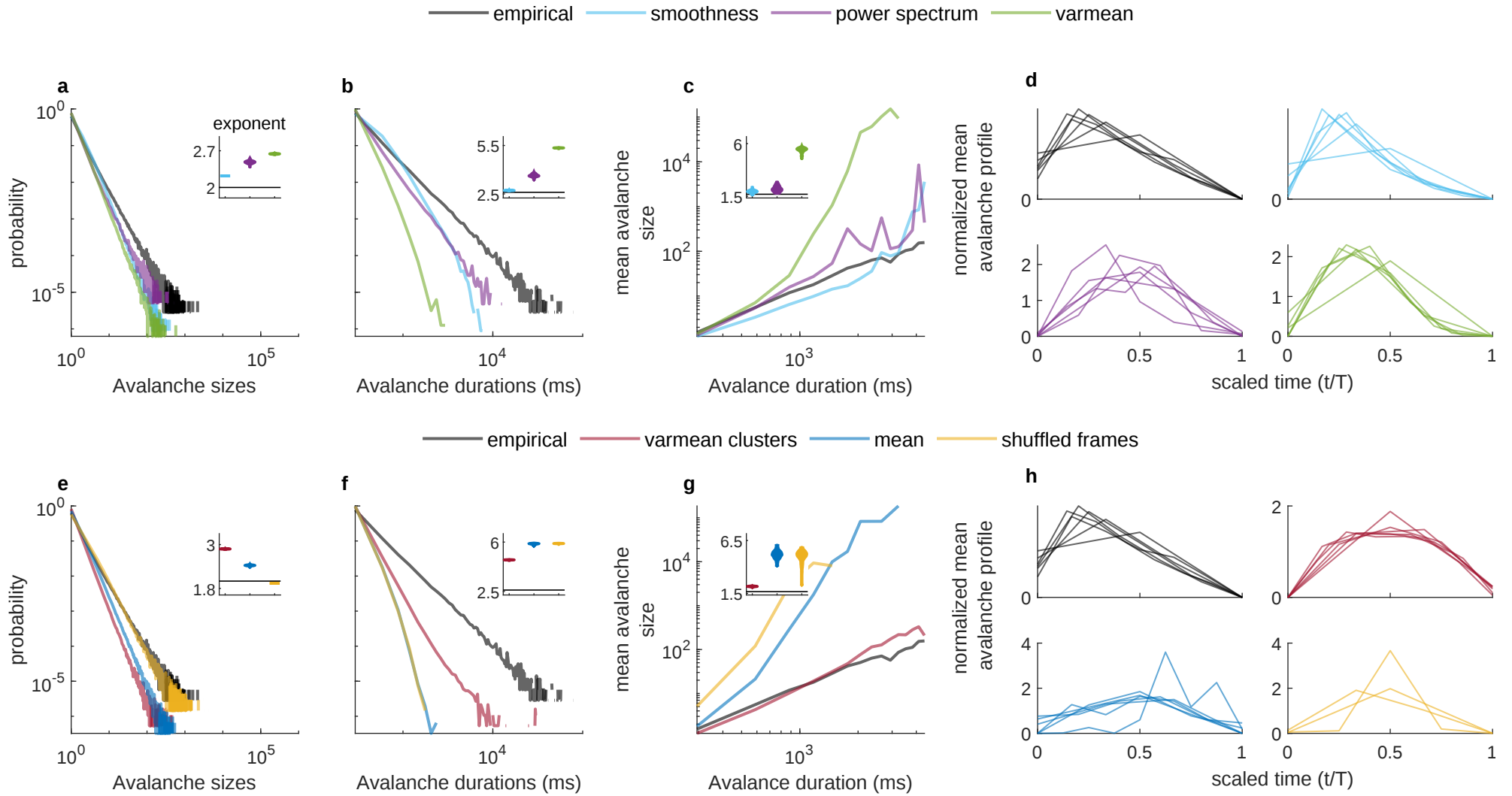
Extended Data Figure 30: See Figures 5-6 caption in the main text.

Avalanche statistics — zebrafish dataset 1



Extended Data Figure 31: See Figures 5-6 caption in the main text.

Avalanche statistics — zebrafish dataset 2



Extended Data Figure 32: See Figures 5-6 caption in the main text.