

SUPPORTING INFORMATION - SUPPLEMENTARY FIGURES – Tsanov et al., 2013

Figure S1. Slow-spiking activity for the main sniffing frequencies. (A) Sample polar plots, showing firing rate in Hz (dotted circles), relative to the sniff cycle for eight slow-spiking units. The peak-to-peak distance of one sniff cycle is considered as 0-360° where the trough is 180°. Each panel shows the phase parameters for recorded spikes (red, left) and shuffled (blue, right) data. (B) Sample polar plots, relative to the sniff cycle for eight slow-spiking units in relation to the sniffing frequency: left panels – 0-5Hz, middle panels – 5-9Hz, right panels – 9-12Hz. Red traces represent recorded, while blue traces represent shuffled spikes.

Figure S2. Fast-spiking activity for the main sniffing frequencies. (A) Sample polar plots, showing firing rate in Hz, relative to the sniff cycle for four fast-spiking units for recorded spikes (red, left) and shuffled (blue, right) data. (B) Sample polar plots, relative to the sniff cycle for the same units for spike trains. (C) Sample polar plots, relative to the sniff cycle for same units for bursts. Red traces represent recorded, while blue traces represent shuffled spikes. (D) Sample polar plots, relative to the sniff cycle for the same fast-spiking units in relation to the sniffing frequency: left panels – 0-5Hz, middle panels – 5-9Hz, right panels – 9-12Hz. Red traces represent recorded, while blue traces represent shuffled spikes.

Figure S3. Theta activity for the main sniffing frequencies. (A) Sample polar plots, showing firing rate in Hz, relative to the sniff cycle for four theta units for recorded spikes (red, left) and shuffled (blue, right) data. (B) Sample polar plots, relative to the sniff cycle for the same units for spike trains. (C) Sample polar plots, relative to the sniff cycle for same units for bursts. Red traces represent recorded, while blue traces represent shuffled spikes. (D) Sample polar plots, relative to the sniff cycle for the same theta units in relation to the sniffing frequency: left panels – 0-5Hz, middle panels – 5-9Hz, right panels – 9-12Hz.

Figure S4. Place cells' relation to sniffing parameters. (A) Polar plots, relative to the sniff cycle for recorded spikes of six CA1 place cells during epochs with significant sniff-LFP correlation (left) and during epochs with no sniff-LFP correlation (right). (B) Polar plots, relative to the sniff cycle for the same place cells with shuffled spikes during epochs with significant sniff-LFP correlation (left) and during epochs with no sniff-LFP correlation (right).

Figure S1:

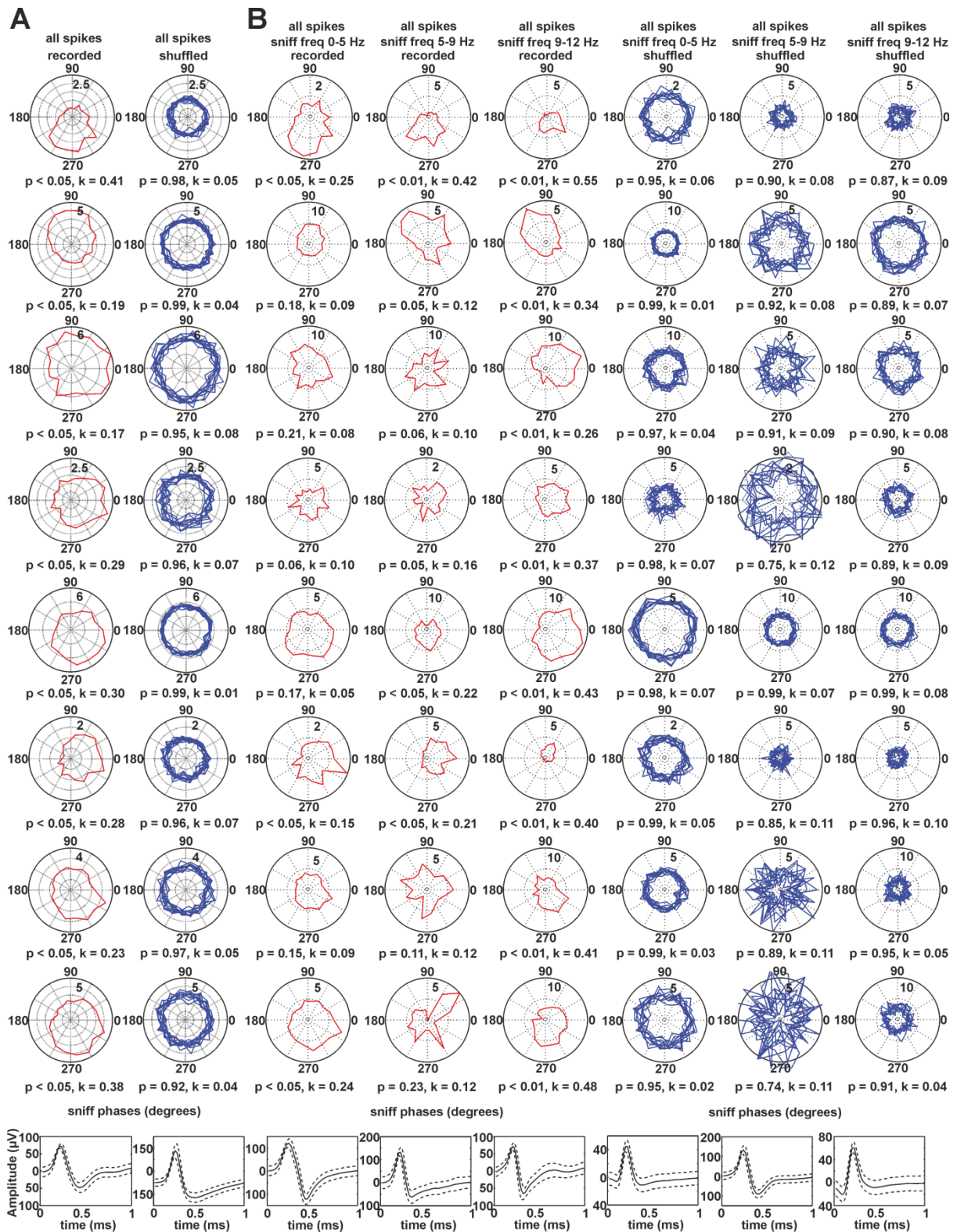


Figure S2:

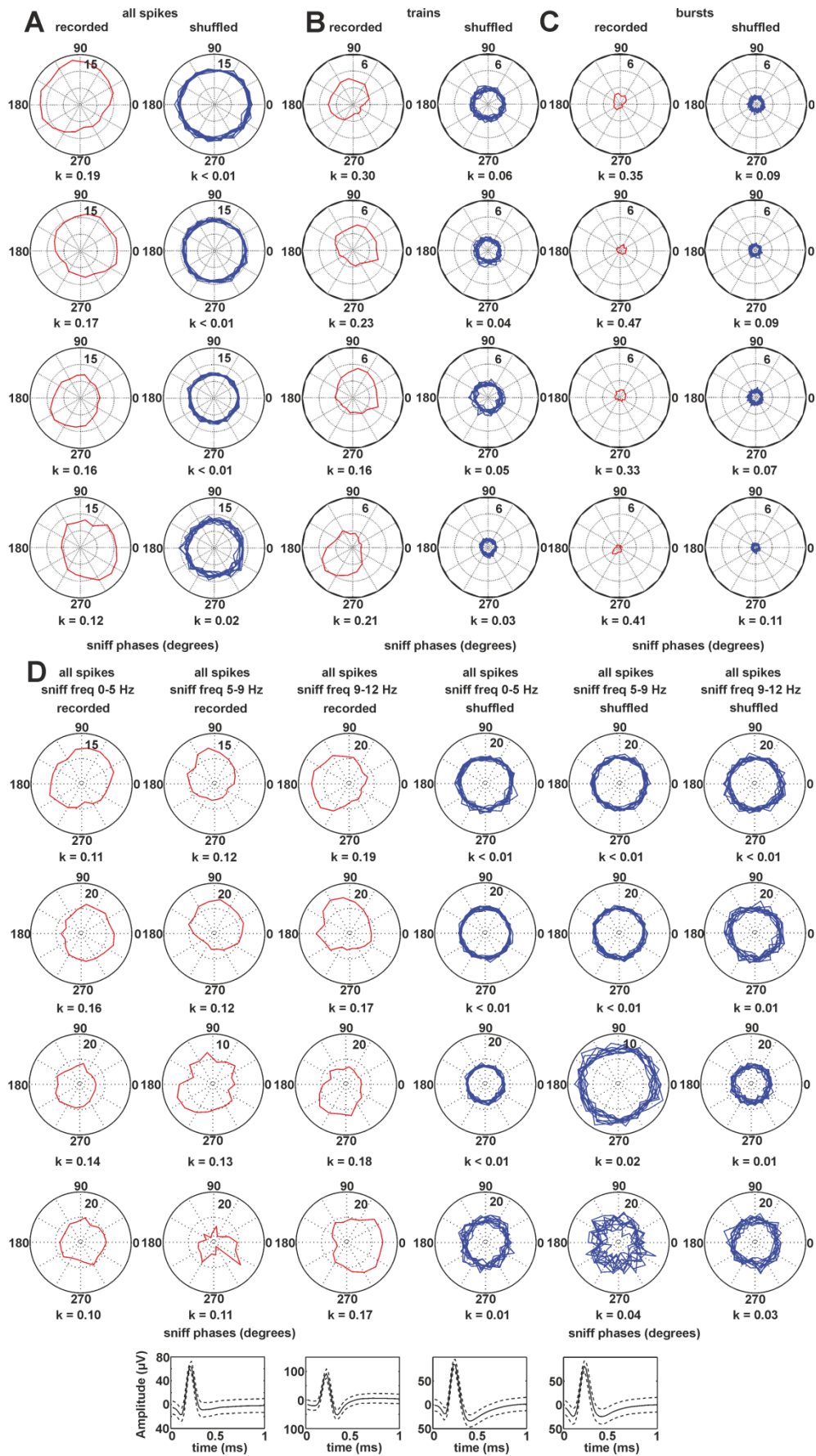


Figure S3:

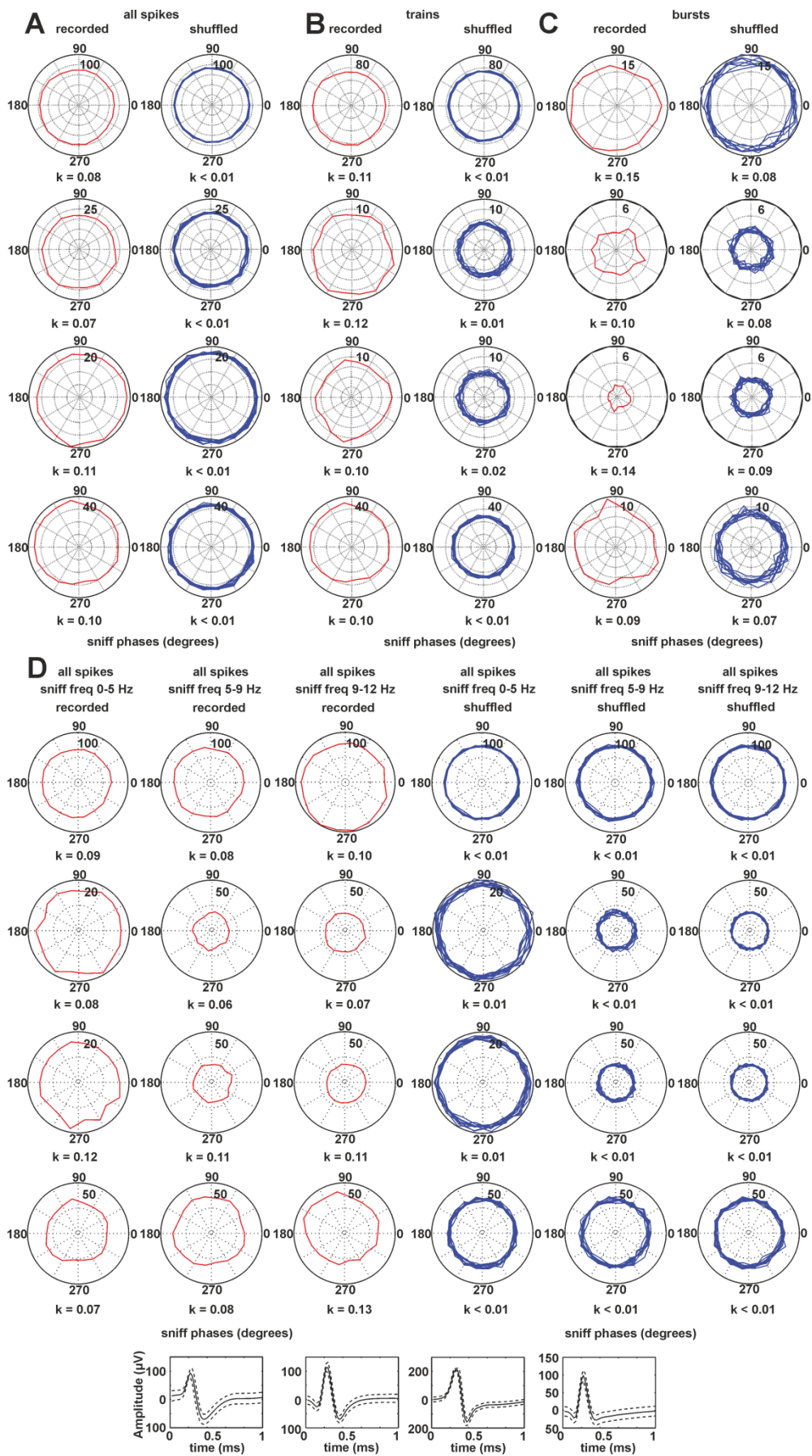


Fig S4:

