Dashboard of Spontaneous Activity: M170717_MP034_2017-09-11 Activity of ~10K Neurons 1000 2000 3000 4000 5000 6000 Mean Activity of Neurons 0 0 2000 2000 Nenrons 6000 0000 Nenton 6000 8000 8000 -0.5Image 0.0 0.5 1.0 Mean activity 1e-5 Mean Distribution of Neurons Mean Activity per Stimulus 0.3 3000 0.2 Activity 2000 0.1 0.0 1000 -0.10 2000 4000 1000 3000 5000 6000 0.5 1.0 -0.50.0 0 Image Mean per neuron 1e-5 Covariance Covariance 6000 0 1000 2000 3000 4000 5000 6000 Response Power Law 0 1000 2000 10^{4} 2000 mage 6000 Neuron observed 3000 10¹ fit = -0.95x + 0.864000 5000 10^{-2} 8000 6000 Image 10⁰ Neuron 10² 10^{3} 10¹ Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 15 15 0.4 Skewness Skewness 10 10 Std 0.2 5 5 0.0 0.1 0.2 0.1 0.2 0.2 0.4 0.0 0.0 0.0 Mean Std Mean

Dashboard of Spontaneous Activity: M170714_MP032_2017-08-07 Activity of ~10K Neurons 1000 2000 3000 4000 5000 0 Mean Activity of Neurons 0 2000 2000 4000 4000 Neurons Neuron 6000 6000 8000 8000 10000 10000 Image $^{-1}$ Mean activity 1e-5 Mean Activity per Stimulus Mean Distribution of Neurons 0.15 6000 0.10 Activity Count 4000 0.05 0.00 2000 -0.050 1000 2000 3000 4000 0 5000 $^{-1}$ Image Mean per neuron 1e-5 Covariance Covariance 4000 6000 8000 10000 2000 3000 Response Power Law 0 0 2000 1000 10^{4} 4000 2000 Neuron Image observed 10¹ 6000 fit = -1.04x + 0.73000 8000 10^{-2} 4000 10000 5000 Image 10⁰ 10¹ 10² Neuron 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 60 60 0.4 Skewness Skewness 40 40 Std 0.2 20 20 0.0 0 0 -0.1 0.2 0.1 0.2 0.0 0.2 0.0 0.4 0.0 Mean Std Mean

Dashboard of Spontaneous Activity: M170717_MP033_2017-08-Activity of ~10K Neurons 1000 2000 3000 4000 5000 0 Mean Activity of Neurons 0 2000 2000 Nenrons 6000 0000 Menton 6000 8000 8000 Image -11 2 Mean activity 1e-5 Mean Distribution of Neurons Mean Activity per Stimulus 0.2 4000 Activity 0.1 Count 2000 0.0 0 3000 4000 5000 1000 2000 -10 Image Mean per neuron 1e-5 Covariance Covariance 4000 6000 8000 2000 3000 4000 5000 Response Power Law 0 1000 2000 10^{4} 2000 Neuron Neuron 96 4000 6000 observed 10¹ 3000 fit = -1.02x + 0.716000 4000 10^{-2} 5000 8000 Neuron Image 10⁰ 10¹ 10² 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 0.4 30 30 Skewness Skewness Std 20 20 0.2 10 10 0.0 0.1 0.2 0.1 0.2 0.0 0.0 0.2 0.0 0.4 Std Mean Mean

Dashboard of Spontaneous Activity: M160825_MP027_2016-12-14 Activity of ~10K Neurons 1000 2000 3000 4000 5000 Mean Activity of Neurons 0 0 2000 2000 4000 4000 Neurons 6000 6000 8000 8000 10000 10000 12000 12000 14000 14000 -5 **Image** 5 Mean activity 1e-6 Mean Activity per Stimulus Mean Distribution of Neurons 6000 0.1 Activity Count 4000 0.0 2000 0 3000 4000 5000 1000 2000 0 -5 Mean per neuron 1e-6 **Image** Covariance Covariance 2000 3000 4000 5000 400,000,000,000,000,000 Response Power Law 0 0 2000 1000 10^{4} 4000 2000 Neuron observed 6000 10¹ fit = -1.0x + 0.773000 8000 10000 4000 10^{-2} 12000 5000 14000 10¹ Neuron **Image** 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 0.4 20 20 0.3 Skewness Skewness B 0.2 10 10 0.1 0.1 0.2 0.1 0.2 0.2 0.0 0.0 0.4 Mean Mean Std

Dashboard of Spontaneous Activity: M161025_MP030_2017-05-29 Activity of ~10K Neurons 1000 2000 3000 4000 5000 0 Mean Activity of Neurons 0 2000 2000 Neurons 4000 4000 6000 6000 8000 8000 10000 10000 Image Mean activity 1e-5 Mean Distribution of Neurons Mean Activity per Stimulus 4000 Activity 0.2 3000 2000 0.0 1000 0 1000 2000 3000 4000 5000 0 Mean per neuron 1e-5 Image Covariance Covariance 6000 8000 10000 2000 2000 3000 4000 5000 Response Power Law 0 0 1000 2000 10^{4} 2000 Neuron 4000 observed 10¹ 3000 fit =-0.92x + 0.89 6000 4000 10^{-2} 8000 5000 10000 Image 10¹ Neuron 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 20 20 0.4 Skewness Skewness 15 15 Std 0.2 10 10 5 5 0.0 -0.0 0.1 0.2 0.2 0.0 0.1 0.2 0.4 Std Mean Mean

Dashboard of Spontaneous Activity: M170714_MP032_2017-09-14 Activity of ~10K Neurons 1000 2000 3000 4000 5000 6000 Mean Activity of Neurons 0 0 2000 2000 Neurons 4000 4000 6000 6000 8000 8000 10000 10000 Image -22 1e-5 Mean activity Mean Distribution of Neurons Mean Activity per Stimulus 1.5 3000 1.0 Activity Count 2000 0.5 1000 0.0 0 2000 1000 3000 4000 6000 0 5000 -2 Mean per neuron 1e-5 **Image** Covariance Covariance 6000 8000 20000 2000 2000 3000 4000 5000 6000 Response Power Law 10⁷ 0 0 1000 2000 10^{4} 2000 Neuron 4000 observed 3000 10¹ fit = -1.01x + 0.756000 4000 5000 10^{-2} 8000 6000 10000 10¹ Neuron Image 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 0.6 20 20 Skewness Skewness 0.4 10 10 0.2 0.0 0 0 0.2 0.2 0.0 0.2 0.0 0.4 0.6 0.0 Std Mean Mean

Dashboard of Spontaneous Activity: M170604_MP031_2017-06-Activity of ~10K Neurons 1000 2000 3000 4000 5000 0 Mean Activity of Neurons 0 2000 2000 Neurons 4000 4000 6000 6000 8000 8000 10000 10000 5 Image Mean activity 1e-6 Mean Distribution of Neurons Mean Activity per Stimulus 0.4 3000 Activity 0.2 Count 2000 0.0 1000 -0.20 1000 2000 3000 4000 5000 0 -5 5 Mean per neuron 1e-6 Image Covariance Covariance 6000 8000 10000 2000 3000 4000 5000 Response Power Law 0 0 1000 2000 10^{4} 2000 Neuron Neuron 4000 observed 10¹ 3000 fit = -0.97x + 0.86000 4000 10^{-2} 8000 5000 10000 10¹ Image Neuron 10^{3} Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 20 20 0.4 Skewness Skewness 15 15 Std 10 10 0.2 5 5 0.0 0.1 0.3 0.2 0.0 0.2 0.1 0.3 0.0 0.2 0.0 0.4 Std Mean Mean