Dashboard of Response Activity: M170717\_MP034\_2017-09-11 Activity of ~10K Neurons 1000 2000 3000 4000 5000 Mean Activity of Neurons 0 0 2000 2000 Neurons 4000 4000 6000 6000 8000 8000 10000 10000 -2.52.5 5.0 **Image** 0.0 Mean activity 1e-6 Mean Activity per Stimulus Histogram of Mean Distribution of Neurons mean 4000 0.2 +std 3000 Activity 0.0 2000 1000 -0.2 1000 2000 3000 4000 5000 0 -2 2 Mean per neuron 1e-5 **Image** Covariance Covariance 6000 8000 20000 2000 2000 3000 4000 5000 Response Power Law 0 0 alpha=1.03 1000  $10^{-2}$ 2000 2000 Variance Neuron lmage 4000  $10^{-4}$ 3000 6000 4000  $10^{-6}$ observed 8000 fit = -(1.03x + 1.7)5000 10000 Image 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 0.6 20 20 Skewness Skewness 15 15 0.4 10 10 0.2 5 5 0.0 0 0 0.2 0.0 0.2 0.4 0.2 0.4 0.0 0.0 0.4 Mean Std Mean

Dashboard of Response Activity: M170717\_MP033\_2017-08-Activity of ~10K Neurons 1000 2000 3000 4000 5000 0 Mean Activity of Neurons 0 2000 2000 4000 4000 Neurons 6000 6000 8000 8000 10000 10000 12000 12000 14000 14000 5.0 lmage -2.50.0 2.5 Mean activity 1e-6 Mean Activity per Stimulus Histogram of Mean Distribution of Neurons mean 0.2 +std 4000 Count 0.0 2000 -0.20 3000 1000 2000 5000 0 4000 -2 2 Mean per neuron 1e-5 **Image** Covariance Covariance 0 2000,400,600,600,000,000,000,000 2000 2000 3000 4000 5000 Response Power Law 0 alpha=1.04 2000 1000 4000  $10^{-2}$ Variance 2000 Image 6000 3000 8000  $10^{-4}$ 10000 4000 observed 12000 fit = -(1.04x + 1.71)5000 14000 Image 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 0.6 20 20 Skewness Skewness 15 15 0.4 10 10 0.2 5 5 0.0 0 0 0.2 0.0 0.2 0.2 0.0 0.4 0.4 0.0 0.4 Std Mean Mean

Activity

Dashboard of Response Activity: M160825\_MP027\_2016-12-14 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 -2.5Image 0.0 2.5 5.0 Mean activity 1e-6 Mean Activity per Stimulus Histogram of Mean Distribution of Neurons mean 0.2 3000 +std Activity Count 2000 0.0 1000 -0.21000 2000 3000 5000 4000 6000 -2 2 Mean per neuron 1e-5 **Image** Covariance Covariance 6000 8000 20000 20002003000400050006000 Response Power Law 0 alpha=1.05 1000 2000 2000  $10^{-2}$ Variance Image 4000 3000 6000 4000  $10^{-4}$ 5000 observed 8000 fit = -(1.05x + 1.66)6000 10000 Image 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 0.6 20 20 Skewness Skewness 15 15 0.4 10 10 0.2 5 5 0.0 0 0 0.2 0.2 0.4 0.2 0.0 0.0 0.0 0.4 0.4 Mean Std Mean

Dashboard of Response Activity: M161025\_MP030\_2017-05-29 Activity of ~10K Neurons 1000 2000 3000 4000 6000 5000 Mean Activity of Neurons 0 0 2000 2000 Neurons 6000 0000 Nenton 6000 8000 8000 Image -2.50.0 2.5 5.0 1e-6 Mean activity Histogram of Mean Distribution of Neurons Mean Activity per Stimulus mean 0.2 +std 2000 Activity Count 0.0 1000 -0.20 1000 2000 3000 4000 5000 6000 0 -2Mean per neuron 1e-5 **Image** Covariance Covariance 0 100020003000400050006000 6000 Response Power Law 0 alpha=0.97 1000 2000 2000  $10^{-2}$ Variance eb 4000 6000 3000 4000  $10^{-4}$ 5000 observed 8000 fit =-(0.97x + 1.97) 6000 lmage 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 0.6 20 20 Skewness Skewness 15 15 0.4 10 10 0.2 5 5 0.0 0 0 0.2 0.2 0.2 0.4 0.0 0.4 0.0 0.4 0.0 Std Mean Mean

Dashboard of Response Activity: M170714\_MP032\_2017-09-14 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 -2.52.5 5.0 **Image** 0.0 Mean activity 1e-6 Mean Activity per Stimulus Histogram of Mean Distribution of Neurons 6000 mean 0.2 +std Activity 4000 Count 0.0 2000 -0.20 1000 2000 3000 4000 5000 0 -2 Mean per neuron 1e-5 **Image** Covariance Covariance 4000 6000 8000 20000 2000 3000 Response Power Law 0 0 alpha=1.1  $10^{-1}$ 2000 1000 4000 Variance 2000  $10^{-3}$ 6000 3000 8000  $10^{-5}$ observed 4000 10000 fit = -(1.1x + 1.45)5000 Image 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 0.6 20 20 Skewness Skewness 15 15 0.4 10 10 0.2 5 5 0.0 0 0 0.2 0.2 0.4 0.0 0.2 0.4 0.0 0.4 0.0 Mean Std Mean

Dashboard of Response Activity: M170604\_MP031\_2017-06-Activity of ~10K Neurons 1000 2000 3000 4000 5000 Mean Activity of Neurons 0 0 2000 2000 Neurons 4000 4000 6000 6000 8000 10000 -2.5 5.0 Image 0.0 Mean activity 1e-6 Mean Activity per Stimulus Histogram of Mean Distribution of Neurons 3000 mean 0.2 +std 2000 Count 0.0 1000 -0.2 1000 2000 3000 4000 5000 0 -2 2 Mean per neuron 1e-5 **Image** Covariance Covariance 6000 8000 20000 2000 3000 4000 5000 Response Power Law 0 0 alpha=1.01 2000  $10^{-2}$ 2000 Variance lmage 4000 6000  $10^{-4}$ observed 8000 fit = -(1.01x + 1.81)10000 Image 10<sup>2</sup> Neuron 10<sup>0</sup> 10<sup>4</sup> Dimensions Std vs Mean Skewness vs Mean Skewness vs Std 25 25 20 20 Skewness Skewness 15 15 10 10 0.2 5 5 0 0 0.2 0.0 0.2 0.4 0.0 0.2 0.0 0.4 0.4 Mean Std Mean

8000

10000

Activity

1000

3000

4000

5000

0.6

0.4

0.0

Neuron