# NeuroData SIMPLEX Report: February 2017

The following report documents the progress made by the labs of PI Joshua T. Vogelstein and Co-PIs Randal Burns and Carey Priebe at Johns Hopkins University towards goals set by the DARPA SIMPLEX grant.

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# 1 Data: What's in the Cloud

# 2 Statistical Theory and Methods

## 2.1 LOL @jovo

LOL took a backseat this month while jovo had a baby:)

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## 2.2 Multiscale Generalized Correlation (MGC)



Figure 1: Please provide a detailed caption for your figure.

#### 2.3 RerF



Figure 2: Please provide a detailed caption for your figure.

## 2.4 Discriminability



Figure 3: Please provide a detailed caption for your figure.

# 2.5 Low-rank Assumption Discussion

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## 2.6 Robust Law of Large Graphs



Figure 4: Please provide a detailed caption for your figure.

## 2.7 Nonparametric Network Dependence Test



Figure 5: Please provide a detailed caption for your figure.

# 2.8 Batch effect removal in dimension reduction of multiway array data



Figure 6: Please provide a detailed caption for your figure.

## 2.9 Reduced Dimension Clustering



Figure 7: Please provide a detailed caption for your figure.

# 3 Scalable Algorithm Implementations

### 3.1 FlashX



Figure 8: Please provide a detailed caption for your figure.

#### 3.2 ndstore



Figure 9: Please provide a detailed caption for your figure.

#### 3.3 ndviz



Figure 10: Please provide a detailed caption for your figure.

#### 3.4 knor



Figure 11: Please provide a detailed caption for your figure.

# 4 Scientific Pipelines: Infrastructure & Dataset Specific Progress

- 4.1 SIC
- 4.2 ndstore
- **4.3** ndmg
- 4.4 ndviz
- 4.5 MRI
- 4.6 CLARITY
- 4.7 Ophys

# **Bibliography**

# **Manuscripts**

[1] N. Peeps, "Paper with a cool title," 2017.

### **Invited Talks**

[1] N. Peeps, "Talk with a cool title," SIAM, JSM, NIPS, ???, Jan 2017.

## **Conferences**

[1] N. Peeps, "Poster with a cool title," SIAM, JSM, NIPS, ???, Jan 2017.

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# References

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