# A Multivariate Autoregressive Model to Describe Whole-Brain Bold fMRI Dynamics

**Submission ID**    3000301

**Submission Type**  Poster

**Topic**            Neuroscience

**Status**           Submitted

**Submitter**        Eric Wong

**Affiliation**      UC San Diego

## SUBMISSION DETAILS

**Presentation Type**  Either Poster or Oral Presentation

**Presentation Abstract Summary**  We show here that a simple multivariate autoregressive (MVAR) model of the signal dynamics in whole brain resting state BOLD fMRI can capture over 50% of the total variance in parcellated data across subjects, robustly discovers well known networks, provides information regarding the nature of the global signal, and provides estimates of connectivity that are more sparse than those measured using conventional correlation analysis.

**Paper Upload (PDF)**  CCNeuro17.pdf

## Co-author Information

* Presenting Author

| First Name | Last Name | Affiliation | E-mail |
|------------|-----------|-------------|--------|
| Eric * | Wong * | UC San Diego | ecwong@ucsd.edu |

## Keywords

| Keywords |
|----------|
| Causal modeling |
| fMRI |
| resting-state functional connectivity |
| multivariate autoregression |