

# Representative approach for big data dimension reduction with binary responses

Xuelong Wang and Jie Yang

Department of Mathematics, Computer Science, and Statistics  
University of Illinois at Chicago

September 02, 2019



## Examples

1. Linear regression:  $Y = a + b_1^T X + b_2^T X + \epsilon$
2. NonLinear regression:  $Y = a + \exp(b_1^T X) + \sin(b_2^T X) + \epsilon$
3. More general:  $Y = f(b_1^T X, b_2^T X, \epsilon)$

# SUSY data

# SUSY data cont.