

**NEAR OPTIMAL SAMPLE COMPLEXITY FOR MATRIX AND TENSOR  
NORMAL MODELS VIA GEODESIC CONVEXITY**

BY COLE FRANKS<sup>1</sup>, RAFAEL OLIVEIRA<sup>2</sup>, AKSHAY RAMACHANDRAN<sup>2</sup>  
AND MICHAEL WALTER<sup>3</sup>

<sup>1</sup>*Massachusetts Institute of Technology*

<sup>2</sup>*University of Waterloo*

<sup>3</sup>*University of Amsterdam*

SUPPLEMENTARY MATERIAL

**Supplementary material for nearly optimal sample complexity for matrix and tensor  
normal models**  
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