

Temporal Dynamics on Decoding Target Stimuli in Rapid Serial Visual Presentation using Magnetoencephalography

Chuncheng Zhang¹, Shuang Qiu¹, Shengpei Wang¹, Wei Wei¹,
Huiguang He¹

¹Research Center for Brain-inspired Intelligence, Institute of Automation, Chinese
Academy of Science, Beijing, China.

June 2, 2020

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 Methods
- 4 Results and Discussion
- 5 Conclusion
- 6 Acknowledgements

Table of Contents

- 1 Introduction
- 2 Experiment
 - Task Design
 - MEG and MRI acquisition
- 3 Methods
 - MEG and MRI Preprocessing
 - MVPA
 - Cortical Neuronal Activation Estimation
- 4 Results and Discussion
 - MEG Signal Visualization
 - MVPA Scores
 - Cortical Neuronal Activation
- 5 Conclusion
- 6 Acknowledgements

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 Methods
- 4 Results and Discussion
- 5 Conclusion
- 6 Acknowledgements

Introduction 1

Introduction 1

- 1 Introduction
- 2 Experiment
 - Task Design
 - MEG and MRI acquisition
- 3 Methods
- 4 Results and Discussion
- 5 Conclusion
- 6 Acknowledgements

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

Task Design

MEG and MRI acquisition

Task Design

MEG and MRI acquisition

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 **Methods**
 - MEG and MRI Preprocessing
 - MVPA
 - Cortical Neuronal Activation Estimation
- 4 Results and Discussion
- 5 Conclusion
- 6 Acknowledgements

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG and MRI Preprocessing

MVPA

Cortical Neuronal Activation Estimation

MEG and MRI Preprocessing

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG and MRI Preprocessing

MVPA

Cortical Neuronal Activation Estimation

MVPA

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG and MRI Preprocessing

MVPA

Cortical Neuronal Activation Estimation

Cortical Neuronal Activation Estimation

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 Methods
- 4 Results and Discussion
 - MEG Signal Visualization
 - MVPA Scores
 - Cortical Neuronal Activation
- 5 Conclusion
- 6 Acknowledgements

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG Signal Visualization

MVPA Scores

Cortical Neuronal Activation

MEG Signal Visualization

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG Signal Visualization

MVPA Scores

Cortical Neuronal Activation

MVPA Scores

Introduction

Experiment

Methods

Results and Discussion

Conclusion

Acknowledgements

MEG Signal Visualization

MVPA Scores

Cortical Neuronal Activation

Cortical Neuronal Activation

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 Methods
- 4 Results and Discussion
- 5 Conclusion**
- 6 Acknowledgements

Conclusion

Table of Contents

- 1 Introduction
- 2 Experiment
- 3 Methods
- 4 Results and Discussion
- 5 Conclusion
- 6 Acknowledgements**

Acknowledgements