



## PSTR236.14 / VV17 - Prefrontal ensemble dynamics in spatial working memory in marmosets

November 13, 2023, 8:00 AM - 12:00 PM

WCC Halls A-C

### Presenter at Poster

Mon. Nov. 13, 2023 9:00 AM - 10:00 AM

### Session Type

Poster

### Grant Support

Canada research chair

### Grant Support

VISTA, York university

### Citation

\***N. KATYARE**<sup>1</sup>, **R. WONG**<sup>2</sup>,  
**S. EVERLING**<sup>2</sup>, **L. MA**<sup>1</sup>;

<sup>1</sup>York Univ., Toronto, ON, Canada;

<sup>2</sup>Western Univ., London, ON, Canada.

Prefrontal ensemble dynamics in spatial working memory in marmosets.

Program No. PSTR236.14.

2023 Neuroscience Meeting Planner.

Washington, D.C.: Society for Neuroscience, 2023.

Online.

### Presentation Number

PSTR236.14

### Authors

\***N. KATYARE**<sup>1</sup>, **R. WONG**<sup>2</sup>, **S. EVERLING**<sup>2</sup>, **L. MA**<sup>1</sup>;

<sup>1</sup>York Univ., Toronto, ON, Canada; <sup>2</sup>Western Univ., London, ON, Canada

### Disclosures

**N. Katyare**: A. Employment/Salary (full or part-time); York university. **R. Wong**: A. Employment/Salary (full or part-time); Western University, London, ON, Canada. **S. Everling**: A. Employment/Salary (full or part-time); Western University, London, ON, Canada. **L. Ma**: A. Employment/Salary (full or part-time); York university.

### Abstract

Neurons in the lateral prefrontal cortex (lPFC) are known to play a role in spatial working memory. Single unit recordings from the lPFC of marmosets during a delayed-match-to-location task confirmed that like Macaques, marmoset lPFC neurons exhibit directional tuning, which correlated with task performance (Wong et al., 2022). Not much, however, is known about population coding in the lPFC of marmosets. Here, we re-analyzed data from Wong et al. (2022), focusing on the coding of spatial information in neuronal ensembles using support vector machines, using 2 different approaches: Best unit and Optimized (Leavitt et al., 2017). In the Best-unit approach, we first sorted neurons based on their decoding accuracy. We then calculated decoding accuracy of top-N neuron ensembles at each size. In the Optimized approach, we identified the N-1 neurons that together with the top neuron, achieved the best performance. As previously reported in macaques, the Optimized approach significantly out-performed the Best-unit approach; and ensembles of size 5-15 performed superior to full ensembles. We next analyzed the ensemble performance separately for broad-spiking and narrow-spiking neurons (BSNs and NSNs). Although BSNs dominated the ensembles, the NSNs contribute substantially to the decoding, especially in the Optimized ensembles, indicating a significant role of interneurons in spatial coding. Analysis of signal and noise correlations revealed a population of non-tuned neurons that were present in Optimized but not in the Best-unit ensembles, and 80-100 % of these exhibited significant noise correlations with tuned neurons. This observation supports a role of noise correlations in enhancing spatial coding. Finally, we observed that the average inter-unit distance for a 10-neuron ensemble was significantly shorter than the average inter-unit distance among the population. This indicates colocalization of neurons that play key roles in spatial coding in lPFC. Our results provide the first evidence that population-level coding properties in the lPFC can be generalized across primate species. References Leavitt ML, Pieper F, Sachs AL, Martinez-Trujillo JC (2017) PNAS 114:E2494-E2503. Wong RK, Selvarajayagam J, Johnston KD, Everling S (2022) Cerebral Cortex. bhac289.

# Society For Neuroscience Abstracts

**Society for Neuroscience**



**Society For Neuroscience Abstracts:**

If you ally habit such a referred **Society For Neuroscience Abstracts** book that will present you worth, acquire the categorically best seller from us currently from several preferred authors. If you desire to entertaining books, lots of novels, tale, jokes, and more fictions collections are along with launched, from best seller to one of the most current released.

You may not be perplexed to enjoy all ebook collections Society For Neuroscience Abstracts that we will utterly offer. It is not on the order of the costs. Its just about what you dependence currently. This Society For Neuroscience Abstracts, as one of the most committed sellers here will extremely be in the course of the best options to review.

<https://archive.kdd.org/About/uploaded-files/Documents/The%20Blood%20Platelet%20In%20Transfusion%20Therapy.pdf>

## **Table of Contents Society For Neuroscience Abstracts**

1. Understanding the eBook Society For Neuroscience Abstracts
  - The Rise of Digital Reading Society For Neuroscience Abstracts
  - Advantages of eBooks Over Traditional Books
2. Identifying Society For Neuroscience Abstracts
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Society For Neuroscience Abstracts
  - User-Friendly Interface
4. Exploring eBook Recommendations from Society For Neuroscience Abstracts
  - Personalized Recommendations
  - Society For Neuroscience Abstracts User Reviews and Ratings
  - Society For Neuroscience Abstracts and Bestseller Lists
5. Accessing Society For Neuroscience Abstracts Free and Paid eBooks

- Society For Neuroscience Abstracts Public Domain eBooks
  - Society For Neuroscience Abstracts eBook Subscription Services
  - Society For Neuroscience Abstracts Budget-Friendly Options
6. Navigating Society For Neuroscience Abstracts eBook Formats
    - ePub, PDF, MOBI, and More
    - Society For Neuroscience Abstracts Compatibility with Devices
    - Society For Neuroscience Abstracts Enhanced eBook Features
  7. Enhancing Your Reading Experience
    - Adjustable Fonts and Text Sizes of Society For Neuroscience Abstracts
    - Highlighting and Note-Taking Society For Neuroscience Abstracts
    - Interactive Elements Society For Neuroscience Abstracts
  8. Staying Engaged with Society For Neuroscience Abstracts
    - Joining Online Reading Communities
    - Participating in Virtual Book Clubs
    - Following Authors and Publishers Society For Neuroscience Abstracts
  9. Balancing eBooks and Physical Books Society For Neuroscience Abstracts
    - Benefits of a Digital Library
    - Creating a Diverse Reading Collection Society For Neuroscience Abstracts
  10. Overcoming Reading Challenges
    - Dealing with Digital Eye Strain
    - Minimizing Distractions
    - Managing Screen Time
  11. Cultivating a Reading Routine Society For Neuroscience Abstracts
    - Setting Reading Goals Society For Neuroscience Abstracts
    - Carving Out Dedicated Reading Time
  12. Sourcing Reliable Information of Society For Neuroscience Abstracts
    - Fact-Checking eBook Content of Society For Neuroscience Abstracts
    - Distinguishing Credible Sources
  13. Promoting Lifelong Learning
    - Utilizing eBooks for Skill Development

- Exploring Educational eBooks
14. Embracing eBook Trends
- Integration of Multimedia Elements
  - Interactive and Gamified eBooks

### **Society For Neuroscience Abstracts Introduction**

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In today's fast-paced digital age, obtaining valuable knowledge has become easier than ever. Thanks to the internet, a vast array of books and manuals are now available for free download in PDF format. Whether you are a student, professional, or simply an avid reader, this treasure trove of downloadable resources offers a wealth of information, conveniently accessible anytime, anywhere. The advent of online libraries and platforms dedicated to sharing knowledge has revolutionized the way we consume information. No longer confined to physical libraries or bookstores, readers can now access an extensive collection of digital books and manuals with just a few clicks. These resources, available in PDF, Microsoft Word, and PowerPoint formats, cater to a wide range of interests, including literature, technology, science, history, and much more. One notable platform where you can explore and download free Society For Neuroscience Abstracts PDF books and manuals is the internet's largest free library. Hosted online, this catalog compiles a vast assortment of documents, making it a veritable goldmine of knowledge. With its easy-to-use website interface and customizable PDF generator, this platform offers a user-friendly experience, allowing individuals to effortlessly navigate and access the information they seek. The availability of free PDF books and manuals on this platform demonstrates its commitment to democratizing education and empowering individuals with the tools needed to succeed in their chosen fields. It allows anyone, regardless of their background or financial limitations, to expand their horizons and gain insights from experts in various disciplines. One of the most significant advantages of downloading PDF books and manuals lies in their portability. Unlike physical copies, digital books can be stored and carried on a single device, such as a tablet or smartphone, saving valuable space and weight. This convenience makes it possible for readers to have their entire library at their fingertips, whether they are commuting, traveling, or simply enjoying a lazy afternoon at home. Additionally, digital files are easily searchable, enabling readers to locate specific information within seconds. With a few keystrokes, users can search for keywords, topics, or phrases, making research and finding relevant information a breeze. This efficiency saves time and effort, streamlining the learning process and allowing individuals to focus on extracting the information they need. Furthermore, the availability of free PDF books and manuals fosters a culture of continuous learning. By removing financial barriers, more people can access educational resources and pursue lifelong learning, contributing to personal growth and professional development. This democratization of knowledge promotes intellectual curiosity and

empowers individuals to become lifelong learners, promoting progress and innovation in various fields. It is worth noting that while accessing free Society For Neuroscience Abstracts PDF books and manuals is convenient and cost-effective, it is vital to respect copyright laws and intellectual property rights. Platforms offering free downloads often operate within legal boundaries, ensuring that the materials they provide are either in the public domain or authorized for distribution. By adhering to copyright laws, users can enjoy the benefits of free access to knowledge while supporting the authors and publishers who make these resources available. In conclusion, the availability of Society For Neuroscience Abstracts free PDF books and manuals for download has revolutionized the way we access and consume knowledge. With just a few clicks, individuals can explore a vast collection of resources across different disciplines, all free of charge. This accessibility empowers individuals to become lifelong learners, contributing to personal growth, professional development, and the advancement of society as a whole. So why not unlock a world of knowledge today? Start exploring the vast sea of free PDF books and manuals waiting to be discovered right at your fingertips.

### **FAQs About Society For Neuroscience Abstracts Books**

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Society For Neuroscience Abstracts is one of the best book in our library for free trial. We provide copy of Society For Neuroscience Abstracts in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Society For Neuroscience Abstracts. Where to download Society For Neuroscience Abstracts online for free? Are you looking for Society For Neuroscience Abstracts PDF? This is definitely going to save you time and cash in something you should think about.

**Find Society For Neuroscience Abstracts :**

**the blood platelet in transfusion therapy**

the blood is strong

**the black students guide to college success**

**the big of stars and planets**

the bold west edition 24

the bloodied ivy

the big sled race hello reader level 3

the botanical gardens at the huntington

**the boston assembly minutes 1545 1575 publications of the lincoln record society vol 77**

**the black-capped chickadee behavioral ecology and natural history**

the boomerang clue

**the blood-and-thunder adventure on hurricane peak complete & unabridged**

**the body reader social aspects of the human body.**

*the birds tale and two tales on top*

the big of kitchen appliance recipes

**Society For Neuroscience Abstracts :**

Chapter 12 Solutions | Study Guide, Volume 1 For Warren/ ... Access Study Guide, Volume 1 for Warren/Reeve/Duchac's Financial Managerial Accounting, 12th and Corporate Financial Accounting, 12th 12th Edition Chapter ... Financial Accounting 12th Edition Textbook Solutions Textbook solutions for Financial Accounting 12th Edition Carl S. Warren and others in this series. View step-by-step homework solutions for your homework. Financial accounting warren reeve duchac 12e solutions Oct 11, 2023 — It will extremely ease you to see guide financial accounting warren reeve duchac 12e solutions as you such as. By searching the title ... Study Guide, Volume 1 For Warren/reeve/duchac's ... Access Study Guide, Volume 1 for Warren/Reeve/Duchac's Financial Managerial Accounting, 12th and Corporate Financial Accounting, 12th 12th Edition Chapter 1 ... financial accounting warren reeve duchac 12e solutions ... Mar 10, 2023 — Thank you very much for reading financial accounting warren reeve duchac 12e solutions. As you may know, people. Corporate Financial Accounting - 12th Edition - Solutions ... Find step-by-step solutions and answers to Corporate Financial Accounting - 9781285677811, as well as thousands of textbooks so you can move forward with ... Test Bank for Financial Accounting 12th Edition Warren ... View Test

prep - Test Bank for Financial Accounting 12th Edition Warren, Reeve, Duchac from ACCT ACCT-300 at Texas Southern University. download full file ... 2023-09-24 1/2 financial accounting warren reeve duchac ... Sep 24, 2023 — Thank you for reading financial accounting warren reeve duchac 12e solutions. Maybe you have knowledge that, people have look hundreds times ... Solution Manual for Corporate Financial Accounting 12th Edition by Warren ISBN 1133952410 9781133952411. Full link download: Solution Manual: Solutions manual chapters 1-17 : Accounting 24e ... Solutions manual chapters 1-17 : Accounting 24e, Financial Accounting 12e, or Accounting using Excel for success 2e. Show more ; Genre: Problems and exercises. Volvo S60 Repair Manual Volvo S60 Petrol and Diesel Service and Repair Manual: 2000 to 2009 (Haynes Service and Repair Manuals). by Martynn Randall · 4.44.4 out of 5 stars (64). Repair Manuals & Literature for Volvo S60 - eBay Get the best deals on Repair Manuals & Literature for Volvo S60 when you shop the largest online selection at eBay.com. Free shipping on many items | Browse ... Volvo S60 Petrol and Diesel Service and Repair ... Volvo S60 Petrol and Diesel Service and Repair Manual: 2000 to 2008 (Haynes Service and Repair Manuals) [Martynn Randall] on Amazon.com. S60 Service Manual Apr 4, 2008 — Downloadable Service Manual for S60? Service/Repair manual 2006 S60 2.5T · 440/460/480 Haynes manual + 480 users manual. Volvo S60 & V60 ... Repair manuals - Volvo S60 I Repair manuals. 67.8 MB, English, 405. S60 I, 2008, 2008 volvo s60 wiring diagram service manual.pdf. TP 39112202. Repair manuals. 23.5 MB, English, 224. S60 I. Volvo Cars US Owners Manual 2008 S60 2008 Volvo S60 Owner's Manual · 2008 Volvo Keys To Enjoying Your S60 · 2008 Volvo Navigation System - S60 · 2008 Volvo Warranty and Maintenance. Repair Manuals - Volvo S60 (2001-2019) Books & Technical Documentation for Volvo S60 (2001-2019): Repair Manuals. Volvo S60 (2000 - 2009) - Haynes Manuals Get the expertise you need to maintain your vehicle. Shop our comprehensive Repair Manuals & Guides For Volvo S60 2000 - 2009 at Haynes. Volvo S60 Petrol and Diesel Service and Repair Manual ... Buy Volvo S60 Petrol and Diesel Service and Repair Manual: 2000 to 2008 (Haynes Service and Repair Manuals) Paperback - USED - GOOD Condition at ... 2008 Volvo S60 Repair Manual Online Service & repair instructions specific to your 2008 Volvo S60. Comprehensive Diagrams. See how parts fit together so you can repair or replace it. Reader's Notebook Grade 5 (Journeys) Book details ; ISBN-10. 9780544592667 ; ISBN-13. 978-0544592667 ; Edition. 1st ; Publisher. HOUGHTON MIFFLIN HARCOURT ; Publication date. January 1, 2016. Journeys Common Core Reader'S Notebook ... Journeys Common Core Reader's Notebook Consumable Grade 5 ; Grade: 5 ; Material Type: Student Materials ; Format: Softcover, 432 Pages ; ISBN-13/EAN: 9780547860688 ... Common Core Reader's Notebook... by Houghton ... Journeys Common Core Reader's Notebook Grade 5 Workbook. Read more ... #5,429 in Children's Beginner Readers. #13,448 in Unknown. Customer Reviews, 4.6 out of 5 ... Journeys Common Core Reader'S Notebook Teachers ... Journeys Common Core Reader's Notebook Teachers Edition Grade 5 ; Grade: 5 ; Material Type: Teacher Materials, Resource Materials ; Format: Printables(BLM), 216 ... Journeys Reader's Notebook Grade 5 Sep 7, 2020 — This comprehensive ELA

program from Houghton Mifflin Harcourt may look familiar to you. It has been successfully used in public schools, ... Grade 5 Practice Book JOURNEYS. Practice Book. Grade 5. HOUGHTON MIFFLIN HARCOURT. School Publishers ... Connect to Reading Look through A Package for Mrs. Jewls. Find words that have ... Common Core Reader's Notebook Consumable... Journeys Common Core Reader's Notebook Grade 5 Workbook. This description may be from another edition of this product. ... Weight:0.60 lbs. Dimensions:0.7" x 8.6" ... Common Core Student Edition Grade 5 2014 Buy a cheap copy of Houghton Mifflin Harcourt Journeys:... book. Journeys Common Core Student Edition Grade 5 2014 Free Shipping on all orders over \$15.