

## Matteo Visconti di Oleggio Castello

www.mvdoc.me    mvdoc.gr@dartmouth.edu    (+1) 603 646 8665  
Dartmouth College, 6207 Moore Hall, Hanover NH, USA

### Education

2013–	Ph.D. Cognitive Neuroscience Advisor: M. Ida Gobbini	Dartmouth College
2011–2013	M.Sc. Cognitive Science, <i>cum laude</i> Advisor: James V. Haxby Thesis: <i>Decoding specific observed actions across perspectives using magnetoencephalography</i>	University of Trento, Italy
2010–2011	Courses in Neuroscience and Psychology	University of Trento, Italy
2006–2009	Degree in Mathematics (B.Sc.), <i>cum laude</i> Advisor: Rossella Cancelliere Thesis: <i>Data classification with feature selection by noise-resilient classifiers</i>	University of Torino, Italy

### Peer-reviewed publications

1. Chauhan, V. S., **M. Visconti di Oleggio Castello**, A. Soltani, and M. I. Gobbini (2017). Social saliency of the cue slows attention shifts. *Frontiers in Psychology*.
2. Dalrymple, K. A., **M. Visconti di Oleggio Castello**, J. T. Elison, and M. I. Gobbini (2017). Concurrent development of facial identity and expression discrimination. *PLoS One*.
3. Nastase, S. A., A. C. Connolly, N. N. Oosterhof, Y. O. Halchenko, J. S. Guntupalli, **M. Visconti di Oleggio Castello**, J. Gors, M. I. Gobbini, and J. V. Haxby (2017). Attention Selectively Reshapes the Geometry of Distributed Semantic Representation. *Cerebral Cortex*.
4. **Visconti di Oleggio Castello, M.**, K. G. Wheeler, C. Cipolli, and M. I. Gobbini (2017). Familiarity facilitates feature-based face processing. *PLoS One*.
5. Connolly, A. C., L. Sha, J. S. Guntupalli, N. Oosterhof, Y. O. Halchenko, S. A. Nastase, **M. Visconti di Oleggio Castello**, H. Abdi, B. C. Jobst, M. I. Gobbini, and J. V. Haxby (2016). How the Human Brain Represents Perceived Dangerousness or “Predacity” of Animals. *The Journal of Neuroscience*.
6. Halchenko, Y. O. and **M. Visconti di Oleggio Castello** (2016). DueCredit: automated collection of citations for software, methods, and data. *GigaScience*.
7. **Visconti di Oleggio Castello, M.** and M. I. Gobbini (2015). Familiar Face Detection in 180ms. *PLoS One*.
8. **Visconti di Oleggio Castello\***, **M.**, J. S. Guntupalli\*, H. Yang, and M. I. Gobbini (2014). Facilitated Detection of Social Cues Conveyed by Familiar Faces. *Frontiers in Human Neuroscience*.

### Manuscripts under review

1. **Visconti di Oleggio Castello\***, **M.**, Y. O. Halchenko\*, J. S. Guntupalli, J. D. Gors, and M. I. Gobbini (2017). The neural representation of personally familiar and unfamiliar faces in the distributed system for face perception. *bioRxiv*. <http://biorxiv.org/content/early/2017/05/31/138297>.

### Manuscripts in preparation

1. Marzi, T., **M. Visconti di Oleggio Castello**, M. P. Viggiano, and M. I. Gobbini (in prep.). Dissociation between processing of identity and expression in bad- and super-recognizers.
2. Nastase\*, S. A., **M. Visconti di Oleggio Castello\***, J. V. Haxby, M. I. Gobbini, and Y. O. Halchenko (in prep.). Brain Parcellations based on Representational Geometry.
3. **Visconti di Oleggio Castello\***, **M.**, J. S. Guntupalli\*, and M. I. Gobbini (in prep.). Head-view invariant representation of identity for visually and personally familiar faces.

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\*: Equal contribution to the work.

4. **Visconti di Oleggio Castello, M.**, N. Weisz, and M. I. Gobbini (in prep.). Allocation of Attention to Personally Familiar and Stranger Faces over Time.

## Skills

Programming	Python, R, MATLAB, Bash, JavaScript
Experimental design and coding	PsychoPy, PsychToolbox
Statistics	Generalized Linear Mixed Effects Models (R: lme4), Nonparametric Statistics, Machine Learning (Python: scikit-learn, PyMVPA)
Neuroimaging	fMRI and MEG experimental design, data collection and analysis, using Nipype, AFNI, FSL, MNE-Python, PyMVPA, CoSMoMVPA

## Grants and awards

2017	Graduate Alumni Research Award (\$1,000)	Dartmouth College
2017	OHBM Hackathon Travel award (\$500)	University of British Columbia, Vancouver, Canada
2016	Marie A. Center 1982 Award for Excellence in Teaching	Dartmouth College
2015	Travel grant (\$1,000) to present at the Organization for Human Brain Mapping	Dartmouth Graduate Studies Travel Award
2015	Travel grant (\$1,000) to present at the Society for Neuroscience	Neukom Institute
2013	Scholarship for Merit, M.Sc. Cognitive Science	University of Trento, Italy

## Professional activity

- Co-organizer of the workshop *Action understanding: from kinematics to mind* at Dartmouth College, August 2017, [https://www.dartmouth.edu/~ccn/workshops/workshop\\_2017.html](https://www.dartmouth.edu/~ccn/workshops/workshop_2017.html)
- Chair of *Brainhack Global* at Dartmouth College, March 2017, <https://dartmouthbrainhack.github.io>
- Member of the Cognitive Neuroscience Society, Organization for Human Brain Mapping, Society for Neuroscience
- Reviewer for eLife, Cortex, Frontiers in Neuroscience, PeerJ

## Research presentations

- 2017 *Investigating the face processing network in its full potential using personally familiar faces.* Invited talk at Stanford University, Kalanit Grill-Spector's lab.
- 2016 *Enhanced processing for familiar faces and its neural correlates.* Invited talk at University of California, San Francisco, Marilu Gorno Tempini's lab.
- 2016 *DueCredit: automagically collect citations for the software, methods, and data used in analysis pipelines.* Lighting talk at Neurohackweek, University of Washington eScience Institute. Available at [https://youtu.be/4obqfkgI\\_jc?t=4m16s](https://youtu.be/4obqfkgI_jc?t=4m16s)
- 2016 *How fast can you spot a friend? And how does your brain do it?* Invited lecture at the University of Fribourg, Switzerland.
- 2015 *The Center for Open Neuroscience at Dartmouth.* Talk at the Center for Cognitive Neuroscience Retreat.
- 2015 *The Distributed Neural System for Familiar Face Perception.* Talk at the joint conference of the Dartmouth Neurology/Psychological Brain Sciences Departments.

## Teaching

- 2016 Teaching Assistant for the course Laboratory in Psychological Science (PSYC11), taught by professor M. Ida Gobbini.
- 2015 Teaching Assistant for the course Experimental Design and Methodology (PSYC10), taught by professor John Pfister.
- 2015 Teaching Assistant for the course Experimental Design and Methodology (PSYC10), taught by professor John Pfister.
- 2014 Teaching Assistant for the course Abnormal Psychology (PSYC24), taught by professor William Hudenko.

## Poster presentations

1. **Visconti di Oleggio Castello, M.** and Y. O. Halchenko (2017). Science: give DueCredit to software and methods developers! PyCon.
2. **Visconti di Oleggio Castello, M.**, Y. O. Halchenko, J. S. Guntupalli, J. D. Gors, and M. I. Gobbini (2017). Investigating the Familiar Face Processing Network with Multivoxel Pattern Analysis. Annual Meeting of the Cognitive Neuroscience Society.
3. **Visconti di Oleggio Castello, M.**, N. Weisz, and M. I. Gobbini (2017). Allocation of Attention to Personally Familiar and Stranger Faces over Time. Annual Meeting of the Organization for Human Brain Mapping.
4. Dalrymple, A. K., **M. Visconti di Oleggio Castello**, J. Elison, and M. I. Gobbini (2016). The development of facial identity and expression perception. Annual Meeting of the Vision Sciences Society.
5. Halchenko, Y. O. and **M. Visconti di Oleggio Castello** (2016). DueCredit—automagically collect citations for software, methods, and data you use. Annual Meeting of the Organization for Human Brain Mapping.
6. Wheeler, K., **M. Visconti di Oleggio Castello**, and M. I. Gobbini (2016). Familiarity Facilitates Feature-based Face Processing. Annual Meeting of the Cognitive Neuroscience Society.
7. Nastase, S. A., **M. Visconti di Oleggio Castello**, Y. O. Halchenko, A. C. Connolly, N. N. Oosterhof, M. I. Gobbini, and J. V. Haxby (2015). Attention alters animal and action representation in highly-distributed, functionally-defined cortical parcels. Annual Meeting of the Society for Neuroscience.
8. **Visconti di Oleggio Castello, M.** and M. I. Gobbini (2015). Familiar Face Detection in 180ms. Annual Meeting of the Cognitive Neuroscience Society.

9. **Visconti di Oleggio Castello, M.**, S. A. Nastase, M. I. Gobbini, J. V. Haxby, and Y. O. Halchenko (2015). Finding cortical patches of shared representations: a comparison of clustering algorithms on representational geometries, and the effect of crossvalidation to reduce physiological noise. Annual Meeting of the Society for Neuroscience.

### Theses and technical reports

1. **Visconti di Oleggio Castello, M.** (2013). *Decoding Specific Observed Actions Across Perspectives Using Magnetoencephalography*. M.Sc. Thesis in Cognitive Science. Supervisor: James V. Haxby, Advisors: Nikolaas N. Oosterhof, Angelika Lingnau. University of Trento.
2. Cancelliere, R., E. Roglia, and **M. Visconti di Oleggio Castello** (2009). *Data Classification with Feature Selection by Noise-resilient Classifiers*. Technical Report RT122/09. Department of Computer Science, University of Torino.
3. **Visconti di Oleggio Castello, M.** (2009). *Data Classification with Feature Selection by Noise-resilient Classifiers*. Thesis for Degree in Mathematics. Supervisor: Rossella Cancelliere, Advisor: Elena Roglia. University of Torino.

### Open source software

I'm passionate about open science, reproducibility, and open source software. These are some of the projects I started, co-developed, or contributed to.

DueCredit <a href="http://www.duecredit.org">www.duecredit.org</a>	automated collection and reporting of citations for software/methods/datasets used during analysis pipelines. DueCredit was conceived to address the problem of inadequate citation of scientific software and methods, and limited visibility of donation requests for open-source software.
reprclust <a href="https://github.com/mvdoc/reprclust">https://github.com/mvdoc/reprclust</a>	analysis of clustering methods to find a stable parcellation of the human brain based on Representational Similarity Matrices.
srt_paradigm <a href="https://github.com/mvdoc/srt_paradigm">https://github.com/mvdoc/srt_paradigm</a>	my implementation in MATLAB and PsychToolbox of the experimental paradigm developed by Crouzet et al. to measure how fast our visual system can detect a face (or any other visual object).
glasgow_face_matching_test <a href="https://github.com/mvdoc/glasgow_face_matching_test">https://github.com/mvdoc/glasgow_face_matching_test</a>	PsychoPy implementation of the Glasgow Face Matching Test by Burton, White, & McNeill (2010)
PyMVPA <a href="http://www.pympva.org">www.pympva.org</a>	I'm a regular contributor to PyMVPA, a Python toolbox to analyze neuroimaging data with machine learning methods.

**Conferences and workshops**

- Jun 2017 Organization for Human Brain Mapping (Vancouver)
- May 2017 PyCon (Portland)
- Mar 2017 Cognitive Neuroscience Society (San Francisco)
- Aug 2016 Predictive Coding Workshop (Dartmouth College).
- Sep 2016 Neurohackweek (University of Washington eScience Institute, Seattle). Summer school for neuroimaging and data science.
- Apr 2016 Cognitive Neuroscience Society (New York)
- Oct 2015 Society for Neuroscience Conference (Chicago)
- Jun 2015 Organization for Human Brain Mapping (Honolulu)
- May 2015 PyMVPA workshop (Dartmouth College)
- Mar 2015 Cognitive Neuroscience Society (San Francisco)
- Sep 2014 AFNI Workshop (Dartmouth College). Held by Robert Cox and Ziad Saad (NIH)
- Aug 2014 Decoding Population Responses Workshop (Dartmouth College)
- Aug 2014 Social Perception Workshop (Dartmouth College)
- Nov 2013 Society for Neuroscience Conference (San Diego)
- Jun 2013 CIMeC MEG Workshop: Disentangling the BrainWeb (CIMeC, University of Trento)
- Oct 2012 FieldTrip Workshop (CIMeC, University of Trento). Held by Robert Oostenveld, Roemer van der Meij (Donders Institute)
- May 2012 Concepts, Actions and Objects (CIMeC, University of Trento).
- Feb 2012 Science of Experiential and Qualitative Spaces Workshop (CIMeC, University of Trento).
- Oct 2011 Rovereto Attention Workshop (CIMeC, University of Trento).
- May 2011 Concepts, Actions and Objects (CIMeC, University of Trento).

**Other education and courses**

- 2015 Improvisation for scientists, Dartmouth College. Based on Alan Alda's workshops to improve scientific communication.
- 2012 Writing in the Sciences ([www.coursera.org](http://www.coursera.org)). Certificate of Completion with Distinction. Instructor: Kristin Sainani, Stanford University
- 2011–2012 Dramatic Acting Classes (80 hours). Centro Didattico Musicateatrodanza, Trento, Italy
- 2010 Academic English course (Advanced Level). The Language Center, University of the Arts, London
- 2007–2009 Dramatic Acting Classes (700 hours). Teatranza Artedrama, Torino, Italy.
- 2004–2006 Dramatic Acting Classes (200 hours). Compagni di Viaggio, Torino, Italy.

### **Other interests**

- Letterpress Printing
  - 2017 Dartmouth College Book Arts Letterpress Prize
  - 2016 Dartmouth College Book Arts Letterpress Prize
- Theater and improvisation
- Photography