

Qualifications

Doctoral degree, Humanities, University of Helsinki
Award Date: 15 Oct 1985

Licentiate degree, Natural Sciences, University of Helsinki
Award Date: 28 May 1985

Master's degree, Humanities, University of Helsinki
Award Date: 25 Sept 1979

Bachelor's degree, Social Sciences, University of Helsinki
Award Date: 29 May 1979

Employment

Senior Advisor

Senior Advisor
Department of Neuroscience and Biomedical Engineering
Aalto University
1 Jun 2021 → present

Professor

Department of Computer Science
Aalto University
Finland
1 Jan 2016 → present

Adjunct professor

University of Helsinki
Helsinki, Finland
1 Jan 1987 → present

Research output

Active auditory system

Sams, M. E., Sept 2008, In: *International Journal of Psychophysiology*. 69, 3, p. 199-199 1 p.

Human auditory Cortex is tuned to lip-reading

Sams, M., Jääskeläinen, I. P., Kauramäki, J., Hari, R., Rauschecker, J. P. & Möttönen, R., 2006, (Society for Neuroscience Annual Meeting, Atlanta 14.-18.10.2006).

Seeing and hearing others and oneself to talk

Sams, M., Möttönen, R. & Sihvonen, T., May 2005, In: *Cognitive Brain Research*. 23, 2-3, p. 429-435 7 p.

Neurocognitive research on the Laboratory of Computational Engineering: Complex neurocognitive systems

Sams, M., 2005, *Biology of Cognition, University of Helsinki, April 8-9, 2005*.

Visual influences on auditory processing of speech

Sams, M., 2005, *6th Multisensory Research Forum, June 5.-8.2005, Trento, Italy*.

Neurocognition of speech-specific audiovisual perception

Sams, M., Ojanen, V., Tuomainen, J. & Klucharev, V., 2004, *Proceedings of the 8th International Congress on Spoken Language Processing, Jeju, South-Korea, October 4-8, 2004*. South-Korea

Audio-visual speech processing and attention

Sams, M., 2003, In: *Psychophysiology*. 40, p. S5-S6 2 p.

Abstract phoneme representations in the left temporal cortex: MEG study

Sams, M., Shestakova, A., Brattico, E., Huotilainen, M., Galunov, V., Soloviev, A., Ilmoniemi, R. & Näätänen, R., 2002, In: *Neuroreport*. 13, p. 1813-1816

Audiovisual speech perception

Sams, M., 2002, In *"Speech in Context, Houston, Texas, USA, March 13-16, 2002.*

Audiovisual speech perception

Sams, M., 2002, *Seminar in Northwestern University, Department of Communication Sciences Neurobiology and Physiology, Otolaryngology, Evanston, USA, April 18, 2002.*

Audiovisual speech perception

Sams, M., 2002, *Seminar in the Department of Neurobiology and Anatomy, Wake Forest University School of Medicine, Winston-Salem, USA, March 19, 2002.*

Ihmisen audiovisuaalinen havaitseminen

Sams, M., 2002, *Aivojen kuvantamis- ja mittausmenetelmät kognitiivisessa neurotieteessä, Oulu, 17.5.2002.*

Neurocognitive mechanisms of audiovisual speech

Sams, M., 2002, *6th Finnish-Russian Winter School, January 5.-11., 2002, Tvärminne, Finland.*

Speech production modifies speech perception

Sams, M. & Mottonen, R., 2000, In: *Journal of Cognitive Neuroscience*. p. 128-129 2 p., 117E.

Towards a high-quality and well-controlled Finnish audio-visual speech synthesizer.

Sams, M., Kulju, J., Möttönen, R., Jussila, V., Olivés, J.-L., Zhang, Y., Kaski, K., Majaranta, P. & Räihä, K.-J., 2000, *4th World Multiconference on Systemics, Cybernetics and Informatics (SCI'2000), Orlando, Florida, USA, July 2000..*

Ihmisen ja tietokoneen välisen vuorovaikutuksen kehittäminen

Sams, M. & Räihä, K.-J., 1999, *Tiedosta ja tiedon tutkimuksesta. Suomen Akatemian tiedon tutkimusohjelman raportteja*, 2. Panzar, E. (ed.). Tampere: Tampereen yliopisto, p. 113-129

McGurk effect in Finnish syllables, isolated words, and words in sentences: Effects of word meaning and sentence context

Sams, M., Manninen, P., Surakka, V., Helin, P. & Kättö, R., Oct 1998, In: *Speech Communication*. 26, 1-2, p. 75-87 13 p.

Neurocognitive mechanisms of audiovisual integration

Sams, M., Hietanen, J. & Surakka, V., 15 Sept 1998, In: *International Journal of Psychophysiology*. 30, 1-2, p. 85-86 2 p.

A neuromagnetic study of the integration of audiovisual in the brain

Sams, M. & Levänen, S., 1998, *Brain Topography Today*. Koga, Y., Nagata, K. & Hirata, K. (eds.). Amsterdam: Elsevier, p. 47-53

Effects of word meaning and sentence context on the integration of audiovisual speech

Sams, M., Manninen, P., Surakka, V., Helin, P. & Kättö, R., 1998, In: *Speech Communication*. 26, p. 75-87

Integration of dichotically and visually presented speech stimuli

Sams, M. & Rusanen, S., 1998, *Auditory-Visual Speech Processing, 1998, Terrigal, New South Wales, Australia, December 4-6, 1998.*

Intermodal interaction

Sams, M., 1998, *Temporal aspects of human cortical information processing, Helsinki University of Technology, Finland, June 14-17, 1998.*

Magnetoencephalography

Sams, M., 1998, *New Investigative Techniques in Neuropsychiatry, Meeting of the Section of Psychiatry of the Royal Society of Medicine, London, 12 May, 1998.*

Face-Specific responses from the human inferior occipito-temporal cortex

Sams, M., Hietanen, J. K., Hari, R., Ilmoniemi, R. & Lounasmaa, O., 1 Jun 1997, In: *Neuroscience*. 77, 1, p. 49-55 7 p.

Where and when is audiovisual speech integrated: MEG studies

Sams, M. & Levanen, S., Jan 1997, In: *International Journal of Psychophysiology*. 25, 1, p. 82-82 1 p.

A neuromagnetic study of the integration of audiovisual speech in the brain

Sams, M. & Levanen, S., 1997, *BRAIN TOPOGRAPHY TODAY*. Koga, Y., Nagata, K. & Hirata, K. (eds.). Elsevier, p. 47-53 7 p. (INTERNATIONAL CONGRESS SERIES; vol. 1147).

Audiovisual speech perception

Sams, M., 1997, In: *Perception*. 26, p. 78-78 1 p.

Where and when is audiovisual speech integrated: MEG studies

Sams, M. & Levänen, S., 1996, p. 203.

Evidence of sharp frequency tuning in the human auditory cortex

Sams, M. & Salmelin, R., 1994, In: *Hearing Research*. 75, 1-2, p. 67-74 8 p.

Human auditory cortical mechanisms of sound lateralization: I. Interaural time differences within sound

Sams, M., Hämäläinen, M., Hari, R. & McEvoy, L., May 1993, In: *Hearing Research*. 67, 1-2, p. 89-97 9 p.

Higher brain functions reflected in MEG

Sams, M., 1993, *The Second Ragnar Granit Symposium, Tampere, 22.-23.11.1993*. Tampere: Tampere University of Technology, p. 9

The human auditory sensory memory trace persists about 10 sec: neuromagnetic evidence

Sams, M., Hari, R., Rif, J. & Knuutila, J., 1993, In: *Journal of Cognitive Neuroscience*. 5, 3, p. 363-370 8 p.

Cognitive processes: current status of neuromagnetic research

Sams, M., 1992, *Biomagnetism: Clinical Aspects*. Hoke, M., Erne, S., Okada, Y. & Romani, G. (eds.). Elsevier, p. 111-119 9 p. (INTERNATIONAL CONGRESS SERIES; vol. 988).

Frequency tuning of the human auditory cortex

Sams, M. & Salmelin, R., 1992, *22nd Annual meeting of the Society for Neuroscience, Anaheim, California, 25.-30.10.1992*. Washington: Society for Neuroscience

Multichannel MEG studies of human cognitive functions

Sams, M., 1992, In: *Biomedical Research - Tokyo*. 13, p. 57-60 4 p.

Seeing speech: visual information from lip movements modifies activity in the human auditory cortex

Sams, M., Aulanko, R., Hämäläinen, M., Hari, R., Lounasmaa, O. V., Lu, S. T. & Simola, J., 10 Jun 1991, In: *Neuroscience Letters*. 127, 1, p. 141-145 5 p.

Neuromagnetic responses of the human auditory cortex to short frequency glides

Sams, M. & Näätänen, R., 2 Jan 1991, In: *Neuroscience Letters*. 121, 1-2, p. 43-46 4 p.

Cortical activity elicited by changes in auditory stimuli: Different sources for the magnetic N100m and mismatch responses
Sams, M., Kaukoranta, E., Hämäläinen, M. & Naatanen, R., Jan 1991, In: Psychophysiology. 28, 1, p. 21-29 9 p.

Cortical responses to changes in auditory stimuli: Magnetoencephalographic studies
Sams, M., 1991, In: Acta Oto-Laryngologica: Supplement. 111, 491, p. 124-131 8 p.

Auditory frequency discrimination and event-related potentials
Sams, M., Paavilainen, P., Alho, K. & Näätänen, R., Nov 1985, In: Electroencephalography and Clinical Neurophysiology. Evoked Potentials. 62, 6, p. 437-448 12 p.

Cerebral neuromagnetic responses evoked by short auditory stimuli
Sams, M., Hämäläinen, M., Antervo, A., Kaukoranta, E., Reinikainen, K. & Hari, R., Oct 1985, In: Electroencephalography and Clinical Neurophysiology. 61, 4, p. 254-266 13 p.

Short-term habituation and dishabituation of the mismatch negativity of the ERP
Sams, M., Alho, K. & Naatanen, R., Jul 1984, In: Psychophysiology. 21, 4, p. 434-441 8 p.

Sequential effects on the ERP in discriminating two stimuli
Sams, M., Alho, K. & Näätänen, R., Aug 1983, In: Biological Psychology. 17, 1, p. 41-58 18 p.

Activities

Creative Technologies
Beloff, L. (Speaker) & Sams, M. (Contributor)
30 Mar 2023

NATURALISTIC EXPERIMENTAL APPROACHES TO MECHANISMS OF HUMAN BEHAVIOR: RELEVANT FOR STUDYING ABSTRACT CONCEPTS?
Sams, M. (Invited speaker)
15 Mar 2021 → 17 Mar 2021

7 Experiences – Aalto Experience Summit to endorse Experience Research as a multidisciplinary research field
Sams, M. (Chair)
1 Sept 2020 → 2 Sept 2020

Emotions: in evolution, in body, in brain
Sams, M. (Speaker)
25 Feb 2019 → 26 Feb 2019

History of Emotions
Sams, M. (Organiser)
7 Nov 2018 → 8 Nov 2018

Ihmisaivojen toiminnan mittaaminen taidekokemuksen kuluessa
Sams, M. (Speaker)
6 Nov 2018

Your in-group influences how you see others
Sams, M. (Speaker)
21 Oct 2018

International Conference on Cognitive Science
Sams, M. (Chair)
18 Oct 2018 → 21 Oct 2018

Psychological Human Cognitive Neuroscience

Sams, M. (Keynote speaker)
18 Oct 2018 → 21 Oct 2018

Decoding Emotions from Brain Activity

Sams, M. (Speaker)
11 Oct 2018 → 12 Oct 2018

Examiner and opponent in Århus Universitet

Sams, M. (Examiner)
28 Jun 2018

Expert evaluator of the planned programme "Biomedical and Health Engineering"

Sams, M. (Reviewer)
10 Jun 2018

Hybrid Labs Symposium

Sams, M. (Speaker)
31 May 2018

Making cognitive neuroscience more psychological.

Sams, M. (Speaker)
1 Nov 2017

Making cognitive neuroscience more psychological.

Sams, M. (Speaker)
29 Oct 2017

Experience Platform (Event)

Sams, M. (Member)
1 Sept 2017 → ...

Kohti psykologista neurotiedettä.

Sams, M. (Speaker)
28 Apr 2017

Evaluator for Assistant Professorship in University of Nottingham

Sams, M. (Examiner)
2017

Early years of N100 and Mismatch Negativity Response in human auditory neuroscience.

Sams, M. (Speaker)
7 Nov 2016

Neurocognition of shared reality.

Sams, M. (Speaker)
31 Oct 2016

Aarhus University

Sams, M. (Visiting researcher)
1 Sept 2016 → 30 Nov 2016

Homophilic Brains?

Sams, M. (Speaker)
28 Apr 2016

Evaluator for promotion to Full Professorhip, Harvard Medical School

Sams, M. (Reviewer)
2016

Attending and Neglecting People

Sams, M. (Member)
16 May 2015 → 20 May 2015

Neural duets: Shared understanding between two brains that are watching movies.

Sams, M. (Speaker)
29 Jan 2015

Evaluator for Associate Professorship in University of Oxford

Sams, M. (Examiner)
2015

Neural duets: Shared understanding between two brains that are watching movies

Sams, M. (Speaker)
14 Nov 2014 → 15 Nov 2014

Studying brain under naturalistic conditions

Sams, M. (Speaker)
2 Jun 2014

Uri Hasson

Sams, M. (Host)
1 Jan 2014

Aalto University (Organisational unit)

Sams, M. (Chair)
2014 → 2017

Aalto University (Organisational unit)

Sams, M. (Chair)
2014 → 2017

Cognition and Emotion (Journal)

Sams, M. (Editor)
2014 → 2017

Lyon Neuroscience Research Center

Sams, M. (Visiting researcher)
2014

Northwestern University

Sams, M. (Visiting researcher)
2014

PloS One (Journal)

Sams, M. (Editor)
2014 → 2017

The Neurosciences and Music V, Dijon, 29.5.-1.6.2014, France

Sams, M. (Contributor)
2014

Processing of emotional valence in the brain.

Sams, M. (Speaker)
11 Jun 2013 → 15 Jun 2013

Brain activity during listening to music and experiencing feelings: naturalistic approach.

Sams, M. (Speaker)
29 Apr 2013

Real-world (almost) caused brain activity.

Sams, M. (Speaker)
22 Apr 2013

Real-world (almost) caused brain activity.

Sams, M. (Speaker)
18 Apr 2013

Studying social brains in real world.

Sams, M. (Speaker)
12 Apr 2013

Intersubjectivity in cognitive neuroscience: Experimentalist's point of view.

Sams, M. (Speaker)
5 Apr 2013

Studying Emotions and music in aivoAALTO project

Sams, M. (Speaker)
8 Mar 2013

Alin Coman

Sams, M. (Host)
1 Jan 2013

2013, San Francisco, USA, 13.-16.4.2013

Sams, M. (Contributor)
2013

Aalto University (Organisational unit)

Sams, M. (Member)
2013 → 2017

Princeton University

Sams, M. (Visiting researcher)
2013

Aalto University (Organisational unit)

Sams, M. (Member)
2012 → 2017

Aalto University (Organisational unit)

Sams, M. (Chair)
2012 → 2015

Doctoral thesis opponent at Aalto University

Sams, M. (Opponent)
2012

University of Oxford

Sams, M. (Visiting researcher)
2012

David McAlpine

Sams, M. (Host)
1 Jan 2011

14th International Congress of ESCAP - European Society for Child and Adolescent Psychiatry, Finland

Sams, M. (Contributor)
2011

34th ARO MidWinter Meeting, Baltimore, Maryland, USA, February 19-23, 2011, USA

Sams, M. (Contributor)
2011

34th ARO MidWinter Meeting, Baltimore, Maryland, USA, February 19-23, 2011, USA

Sams, M. (Contributor)
2011

Georgetown University

Sams, M. (Visiting researcher)
2011

Invited talk in seminar of the Leibniz Institute for Neurobiology, Center for Learning and Memory Research, June 7, 2011, Germany

Sams, M. (Contributor)
2011

Northwestern University

Sams, M. (Visiting researcher)
2011

Seminar in University Medical Center (CMU), University of Geneva, Switzerland

Sams, M. (Contributor)
2011

The Embodied Mind: Motion in Communication and Cognition Research, RWTH Aachen University, Germany, 8.-9.4.2011, Germany

Sams, M. (Contributor)
2011

Yhteistyötapaaminen Emotions in science and art, Portugal

Sams, M. (Contributor)
2010

2nd International Conference on Imaging in Neuroscience, Tromso, 9.-13.9.2009, Norway

Sams, M. (Speaker)

2009

Brain-Learning-Education Network (External organisation)

Sams, M. (Chair)

2009 → 2010

Evaluator for promotion to Associate Adjunct Professor, UCSD, USA

Sams, M. (Reviewer)

2009

Frontiers in Human Neuroscience (Journal)

Sams, M. (Editor)

2009 → 2017

Harry Bronson

Sams, M. (Host)

2009

Jean-Luc Schwartz

Sams, M. (Host)

2009

Kelly Spencer

Sams, M. (Host)

2009

Learning Mind and Brain, Moscow, 16.-20.11.2009, Russia

Sams, M. (Contributor)

2009

Marc Sato

Sams, M. (Host)

2009

Marshall Dawson

Sams, M. (Host)

2009

Nina Kraus

Sams, M. (Host)

2009

RIKEN BSI Joint Workshop on Cognitive and Social Brain, Tokyo, 25.-26.5.2009, Japan

Sams, M. (Speaker)

2009

Acoustics

Sams, M. (Chair)

2008

Acoustics'08 kokous, Pariisi, 27.6.-5.7. 2008, France

Sams, M. (Contributor)

2008

Alfred Kordelin Foundation (External organisation)

Sams, M. (Member)
2008 → 2014

Christian Benoit Muistosymposium, Grenoble, 27.-31.10.2008, France

Sams, M. (Speaker)
2008

Evaluator for promotion to associate professor, Harvard University, USA

Sams, M. (Reviewer)
2008

Foreign Organisation

Sams, M. (Visiting researcher)
2008

International Organization of Psychology annual meeting, Pietari, 11.-13.9.2008., Russia

Sams, M. (Speaker)
2008

Lyon Neuroscience Research Center

Sams, M. (Visiting researcher)
2008

HCSNet SummerFest

Sams, M. (Member)
2007

HCSNet SummerFest '07, University of New South Wales, Sydney, Desember 3-7, 2007, Australia

Sams, M. (Contributor)
2007

Kylliäinen, Anneli (University of Tampere) Finland

Sams, M. (Examiner)
2007

Kylliäinen, Anneli (University of Tampere) Finland

Sams, M. (Opponent)
2007

Northwestern University, USA, October 15, 2007, USA

Sams, M. (Contributor)
2007

Anu Kujala (Helsinki University, Department of Psychology) Finland

Sams, M. (Opponent)
2006

Brain Awareness week, Helsinki Collegium for Advanced Studies, March 16th, Finland

Sams, M. (Speaker)
2006

Chris Davis
Sams, M. (Host)
2006

Cross-modal interaction in natural and artificial cognitive systems (CINACS), Hamburg, September 28, 2006, Germany
Sams, M. (Speaker)
2006

International Cerebral Palsy Conference, Oulu, February 2-5, 2006, Finland
Sams, M. (Speaker)
2006

Josef Raucher
Sams, M. (Host)
2006

PENS/Hertie Winter School 2006. Brain Basis of Social Interaction: From Concepts to Imaging, Kitzbuhel, Austria, December 10-17, 2006, Austria
Sams, M. (Speaker)
2006

R. Holland Cheng
Sams, M. (Host)
2006

University of Helsinki (External organisation)
Sams, M. (Chair)
2006 → 2017

Vesa Talvitie (Helsinki University, Department of Psychology) Finland
Sams, M. (Examiner)
2006

Yurii Alaxandrov
Sams, M. (Host)
2006

Doctoral thesis opponent at University of Oxford, UK
Sams, M. (Opponent)
2005

Evaluator for promotion of associate professor to full professor, Tilburg University, The Netherlands
Sams, M. (Reviewer)
2005

Määttä, Sara (Kuopion yliopisto)
Sams, M. (Examiner)
2005

8th International Congress on Spoken Language Processing, Jeju, South-Korea, October 4-8, 2004, South-Korea
Sams, M. (Contributor)
2004

Evaluator for promotion for a position of associate professor in radiology: Giorgio Bonmassar, Harvard Medical School
Sams, M. (Reviewer)

2004

Brain Research (Journal)

Sams, M. (Editorial board member)
2002

Human Brain Mapping (Journal)

Sams, M. (Editorial board member)
2002

Journal of Cognitive Neuroscience (Journal)

Sams, M. (Editorial board member)
2002

Psychophysiology (Journal)

Sams, M. (Editorial board member)
2002

Aalto University (Organisational unit)

Sams, M. (Member)
2001 → 2017

Yuri I. Alexandrov

Sams, M. (Host)
2001

Doctoral thesis opponent at University of Helsinki

Sams, M. (Opponent)
2000

Polysteekki (Journal)

Sams, M. (Editorial board member)
2000 → 2008

Dominic Massaro

Sams, M. (Host)
1998

Donald Schankweiler

Sams, M. (Host)
1998

Yuri I. Alexandrov

Sams, M. (Host)
1998

International Organization of Psychophysiology (External organisation)

Sams, M. (Chair)
1997 → 2003

Doctoral thesis opponent at University of Bergen

Sams, M. (Opponent)
1996

Tampere University (External organisation)

Sams, M. (Member)
1996 → 1998

TIEDE (Journal)

Sams, M. (Editorial board member)
1996 → 2006

Academy of Finland (External organisation)

Sams, M. (Member)
1995 → 2002

Brain Research Society of Finland (External organisation)

Sams, M. (Member)
1995 → 2002

Prizes**Augmented Performer**

Tahiroglu, K. (Recipient), Sams, M. (Recipient), Welsch, R. (Recipient), Hokkanen, M. (Recipient), Kloft, A. (Recipient) & Nykänen, J. (Recipient), Dec 2025

International Samuel Sutton prize of the Society for Psychophysiology for 'The best dissertation in psychophysiology in 1985–1986'.

Sams, M. (Recipient), 1987

Projects**Kasvokkain/Nummenmaa/TY**

Sams, M. (Principal investigator) & Volynets, S. (Project Member)
01/09/2016 → 31/12/2016

XTREME: Mixed Reality Environment for Immersive Experience of Art and Culture

Sams, M. (Principal investigator), Kloft, A. (Project Member), Rasimus, P. (Project Member), Vesinurm, K. (Project Member) & Welsch, R. (Co-PI)
01/01/2024 → 31/12/2026

MAGICS: National Infrastructure for Human in the Digital World

Sams, M. (Principal investigator), Lokki, T. (Co-PI) & Merz, S. (Project Member)
01/01/2025 → 31/12/2027

MAGICS: National Infrastructure for human virtualization and remote presence

Sams, M. (Principal investigator), Ruotoistenmäki, A. (Project Member) & Pohjalainen, P. (Project Member)
01/07/2020 → 30/11/2021

Neuroscience of intergroup processes

Sams, M. (Principal investigator), Chang Arana, A. (Project Member), Ertas Yorulmaz, G. (Project Member) & Himberg, T. (Project Member)
01/09/2017 → 31/12/2021

-: XTREME WP 1 NBE

Sams, M. (Principal investigator)
01/01/2024 → 31/12/2026

-: XTREME WP 3 NBE

Sams, M. (Principal investigator)
01/01/2024 → 31/12/2026

-: XTREME WP 4 NBE

Sams, M. (Principal investigator)
01/01/2024 → 31/05/2026

-: XTREME WP 5 NBE

Sams, M. (Principal investigator)
01/01/2024 → 31/12/2026

-: XTREME WP 6 NBE

Sams, M. (Principal investigator)
01/01/2024 → 31/05/2026