# Anne-Maria Laukkanen, Ph.D., Logonom (speech teacher), Vocologist CURRICULUM VITAE (updated 21.1.2024)

Nationality: Finnish

Languages: Finnish (native), English, Swedish, German, some Italian and French

## **Education**:

Highschool Graduation 1983, Tampereen Yhteiskoulu, Tampere M.A. 1990 (Phonetics) University of Helsinki, Faculty of Humanities Phil. Lic. 1993 (Phonetics) University of Helsinki, Faculty of Humanities Zertifikat 'Deutsch als Fremdsprache' 1993, Goethe Institut, Tampere Ph. D. 1995 (Phoniatrics) University of Tampere, Faculty of Medicine

## **Topics of Theses:**

<u>MA Thesis</u>: Vibrato in Singing Voice: An electroglottographic study on fundamental frequency-synchronous waveform variation as a possible indicator of the background of F0 change. A study with material from singers and excised human larvnges.

<u>Phil. Lic. Thesis</u>: Acoustic and Aerodynamic Variables Related to Emphatic Sentence Stress <u>Doctoral Thesis</u>: On Speaking Voice Exercises. A Study on the Acoustic and Physiological Effects of Speaking Voice Exercises Applying Manipulation of the Acoustic-Aerodynamic State of the Supraglottic Space and Artificially Modified Auditory Feedback.

## **Employment**

1985-1987 Research Assistant, University of Tampere

1989-1990 Part-Time Teacher, University of Tampere

1990-1991 Lecturer in Speech Technique, University of Tampere

1991-1997 Senior Assistant in Speech Communication and Voice Research, University of Tampere

1998 Professor of Speech Communication and Voice Research (especially Speech Technique and Vocology), University of Tampere (appointment for a period of limited duration)

1998 Docent in Speech and Voice Research, Tampere University Medical School

1999 Docent in Vocology, University of Oulu

2001 Professor of Speech Technique and Vocology, University of Tampere (permanent appointment)

2005 Senior Researcher, The Academy of Finland

2002-2010 Head of the Department of Speech Communication and Voice Research, University of Tampere.

2011 Vice Dean of the School of Education, University of Tampere

# **Present position:**

Professor of Speech Technique and Vocology, Tampere University

#### Working abroad:

1.9-31.12.1997 Visiting Scholar at the National Center for Voice and Speech (NCVS),

Department of Speech Pathology and Audiology, University of Iowa, Iowa City, Iowa

and The Denver Center for the Performing Arts, Denver, Colorado, USA.

1.1.-31.3.2000 Visiting Research Scientist at NCVS, Department of Speech Pathology and Audiology University of Iowa, Iowa City, Iowa, USA.

12.8.-4.9.2002 Guest researcher at The Royal Institute of Technology, Stockholm, Sweden.

6.5-27.5.2004 and 18.11-7.12.2004 Guest researcher at the Institute of Thermomechanics

- (Department of Dynamics and Vibrations), The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 1.3-31.5.2005 Visiting Research Scientist at NCVS, The Denver Center for the Performing Arts, Denver, Colorado, USA.
- 12.-30.9.2005 Guest researcher at the Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 1.10-24.11.2005 Visiting Research Scientist at NCVS, Department of Speech Pathology and Audiology, University of Iowa, Iowa City, Iowa, USA.
- 25.11-15.12.2005 Guest researcher at the Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 28.5.-12.6.2007 Guest researcher at the Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague. Czech Republic.
- 5.-14.11.2008 Guest researcher at the Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, and Hospital U Sv. Anny and Audio-Fon centr, Brno, Czech Republic
- 9.-23.3.2009 Visiting scientist, Department of Communication Sciences and Disorders, Voice and Speech Laboratory, University of South-Carolina, Columbia, South-Carolina, USA.
- 16.-26.10.2009. Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 1.-28.10.2010 Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 17.-27.11.2011 Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 26.2.-4.3.2013 Visiting scientist, Electrical Impedance Imaging Laboratory, University of Sao Paulo, Brazil.
- 3.5.-5.5. 2012. Visiting scientist, Freiburger Institut für Musikermedizin, Freiburg, Germany.
- 27.-30.1.2016 Visiting scientist, Radiological Clinic, Ostrava University Hospital, Ostrava, Czech Republic.
- 28.2.-7.3.2016 Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 31.5.-9.6.2016 Visiting scientist, Czech Technical University, Faculty of Mechanical Engineering, Prague, Czech Republic
- 3.-6.7.2016 Visiting scientist, University of Freiburg, Institut für Musikermedizin, Freiburg, Germany.
- 3.-7.6.2019 Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.
- 17.-21.10.2022 Visiting scientist, Institute of Thermomechanics, The Academy of Sciences of the Czech Republic, Prague, Czech Republic.

# **Primary Research Interests**

Voice quality in speech and singing, effects and bases of vocal exercises, effects and mechanisms of vocal loading, and applicability of various research methods in vocology.

## **Grants and prizes awarded:**

Scholarship (number 38279) for research work abroad (at NCVS, U.S.A.), awarded by the Academy of Finland 10.4.1997.

Grant (number 200807) for a four-year research project: Multidisciplinary research on the expression of emotion in spoken Finnish: Acoustic and perceptual analysis of the role of voice quality in the expression of emotions in speech, awarded by the Academy of Finland 15.11.2002. Leader of the project.

Grant (number 103309) awarded by the Finnish Work Environment Fund

(Työsuojelurahasto) for a research project Effects of voice massage-treatment, voice training and voice hygienic consultation on teachers' occupational (vocal) capacity during a term. Leader of the project.

Grant of a senior researcher for one year (number 106139) awarded by the Academy of Finland 26.3.2004 for a project Biomechanical study on the traumatizing mechanisms in vocal fold vibration. Grant awarded for research expenses.

Grant awarded by the Finnish Foundation for Research on Diseases of the Ear (Korvatautien tutkimussäätiö) 8.2.2006 together with professor Aatto Sonninen for a project "Pitch regulation in normal and disordered voice'.

Federation of Finnish Learned Societies, Grant awarded (8.3.2008) for arranging The 6th International Conference on Voice Physiology and Biomechanics ICVPB2008).

EU-Cost 2103 Action (Advanced Voice Function Assessment), grant awarded for arranging an International Multi-Disciplinary School on Voice Assessment for Ph.D. students and post doc researchers and 7200 euros for international summit meetings.

Grant (number 128095) awarded by the Academy of Finland for a four-year project 'Electroglottogram and subjective evaluation as a measure or occupational voice load'. Leader of the project.

Grant (decision number 134868) awarded by the Academy of Finland for a fouryear project Computerized inversion for spoken language – An interdisciplinary consortium on inverse problems in the production and perception of speech. Leader of a sub-project.

Grant (number 140017) awarded by the Academy of Finland 28.1.2010 for participation in a Finnish-Japanese seminar in Tokyo, on Modeling of Speech Prosody and Speech Technology.

The Annual Science Prize for 2015, rewarded by the School of Education 17.3.2016, for long-term successful research in the field of Speech Technique and Vocology.

Grant (decision number 356528) awarded by the Academy of Finland for a fouryear project Vocal efficiency and economy in loud Classical Operatic and Contemporary Commercial Music (CCM) singing styles compared to loud speech; 1.9.2023-31.8.2027. Leader of the project.

#### Other merits and commissions of trust

Reviewer for European Science Foundation grant applications 2020

Member of the Steering Committee of Centre for Applied Statistics and Data Analytics, University of Tampere, 2016-2018

External Examiner at Trinity College (Ireland) (School of Linguistic, Speech and Communication Sciences, M.Phil. course in Speech and Language Processing) 2009-2012.

Member of Management Committee, COST Action 2103: Advanced Voice Function Assessment 2009-2011.

Member of Advisory Board, COST Action 2102: Cross-Modal Analysis of Verbal and Non-Verbal Communication 2009-2011.

Member of the Voice Committee of the IALP (International Association of Logopedics and Phoniatrics) 2001-2010.

Member of the Finnish Cultural Foundation funded Project 'Speech Research Workshop' (Puheen tutkimuksen työpaja) 2008-2010

Reviewer of Finnish Doctoral Programme in Computational Sciences (FICS), 2012

Member of the planning group for the National Language-Technogology Education Network 2012

Reviewer of Stockholm's Musikpedagogiska Institut (University College of Music Education in Stockholm) for the right to offer a university college degree (80 credit hours) in speech and communication with focus on aesthetics (logonomi), 2003.

Member of the planning group for a Degree program of Logopedics in collaboration between University of Tampere, University of Turku and Åbo Akademi, 2002-2004.

## Membership in associations.

Finnish Association of Vocologists (voice and speech trainers)

Finnish Association of Logonoms (speech teachers)

Voice and Speech Trainers' Association (VASTA)

The Acoustical Society of Finland

Speech and Language Research Association (Puheen ja kielen tutkimuksen yhdistys)

Finnish Musicians' Medicine Association (Suomen Musiikkilääketieteen yhdistys, SMULY)

Swedish Association Röstforum (earlier: Röstfrämjandet)

Voice Foundation in the USA

International Association of Logopedics and Phoniatrics (IALP)

# Membership in editorial boards

Journal of Voice 2016-

Finnish reviewed scientific journal Puhe ja kieli (Speech and Language).

Associate Editor in Journal of Speech Language and Hearing Research (JSLHR) 2012

## Membership in scientific boards of conferences

International Conference on Occupational Voice Research, ICOVR, October 12-13, 2007, San Antonio, Texas.

The 5th International Workshop 'Models and Analysis of Vocal Emissions for Biomedical Applications', MAVEBA, December 13-15, 2007, Firenze, Italy.

The 3rd Advanced Voice Function Assessment International Workshop, Madrid, Spain, from 18th to 20th of May 2009.

Pan-European Voice Conference PEVOC, 26.-29.8.2009, Dresden, Germany.

The 6th International Workshop 'Models and Analysis of Vocal Emissions for Biomedical Applications', MAVEBA, December 14-16, 2009, Firenze, Italy

PAS 5, The 5th International Conference on the Physiology and Acoustics of Singing 10-13 August 2010, KTH (Kungliga Tekniska Högskolan), Stockholm

The 17th International Conference ENGINEERING MECHANICS 2011, Svratka, Czech Republic, 9 – 12 May 2011.

AVFA 2011, Cost Action 2103 'Advanced Voice Function Assessment' International Workshop, Frankfurt am Main, Germany, 15.-16.5.2011

The 7<sup>th</sup> International Workshop 'Models and Analysis of Vocal Emissions for Biomedical Applications', MAVEBA, 25-27 August 2011, Firenze, Italy.

The 18th International Conference ENGINEERING MECHANICS 2012, organized by the Institute of Theoretical and Applied Mechanics ASCR, 14th to 17th of May 2012 in Svratka, Czech Republic.

The 21st International Conference ENGINEERING MECHANICS 2015, organized by the Institute of Theoretical and Applied Mechanics ASCR, 11th to 14th of May 2015 in Svratka, Czech Republic.

The 22nd International Conference ENGINEERING MECHANICS 2016, May 9-12, 2016 in Svratka, Czech Republic.

The 23rd International Conference ENGINEERING MECHANICS 2017, May 2017 Svratka, Czech Republic.

The 24th International Conference ENGINEERING MECHANICS 2018, May 2018 in Svratka, Czech Republic.

Symposium of Pan-American Vocology Association (PAVA) 2019, Santiago, Chile

International Conference on Voice Physiology and Biomechanics ICVBP 2020, Grenoble, France.

The 7<sup>th</sup> International Physiology and Acoustics of Singing Conference (PAS7+) 6.-7.5.2022, (online) Brazil

# Serving as designated opponent at doctoral defences (4)

Ritva Koivusaari, Logopedics, University of Oulu, 1998 Leena Rantala, Logopedics, University of Oulu 2000

Juha-Pertti Laaksonen, Phonetics and Oral and Maxillofacial Surgery and Oral Diseases, University of Turku 2006

Daniel Zangger Borch, Musikalisk Gestaltning, Luleå Tekniska Högskolan, Sweden 2008

# Serving as designated opponent at the official examination of licenciate theses (2)

Jaana Sellman, Logopedics, University of Helsinki, 2000

Annika Szabo-Leroy, Logopedics, Karolinska Institute, Stockholm, Sweden 2004

# Serving as designated reviewer of doctoral dissertations (4)

Leena Rantala, Logopedics, University of Oulu, 2000 Juha Vintturi, Phoniatrics, University of Helsinki, 2001 Susanna Simberg, Logopedics, University of Helsinki, 2004 Hanna Vertanen-Greis, University of Turku, 2021

# **Supervised doctoral theses (15)**

Irene Bele, University of Oslo, Norway, defence 2002

Marth Munro, University of Potchefstroom, South-Africa, defence 2003

Valdis Jónsdóttir, University of Akureyri, Iceland, defence 2003 (University of Tampere)

Suely Master, Universidade Federal de São Paulo - Escola Paulista de Medicina Sao Paulo,

Brazil, defence 2005 (the thesis was awarded the prize of the best doctoral thesis of the year in its field in Brazil)

Tiina Syrjä, University of Tampere, defence 2007

Irma Ilomäki, University of Tampere, defence 2008

Teija Waaramaa-Mäki-Kulmala, University of Tampere, defence 2009

Kirsti Leppänen, University of Tampere, defence 2012

Elina Kankare, University of Tampere, defence 2014

<u>Dong Liu</u>: Electrical impedance tomography of the larynx, University of Eastern Finland 2015 (cosupervision)

<u>Marco Guzman</u>: Semioccluded vocal tract exercises: a physiologic approach for voice training and therapy, University of Tampere, defence 2017

<u>Kati Järvinen</u>: Voice characteristics in speaking a foreign language. A study of voice in Finnish and English as L1 and L2, defence 2017.

<u>Tua Hakanpää</u>: Emotion expression in the singing voice; testing a parameter modulation technique for improving communication of emotions through voice qualities. Tampere University 2022.

<u>Maarit Aura</u>: Imposto, pääresonanssi, laulajan ilme - Laulupedagogisten käsitteiden fysiologiset ja akustiset selitykset. (Imposto, head resonance, singer's facial impression. Physiological and acoustic explanations of song pedagogical concepts.) Tampere University 2023.

<u>Jaana Tyrmi</u>: From nasals to water resistance. Tampere University 2024.

# **Current supervision of doctoral theses (6)**

Speech and Voice Research Laboratory, Faculty of Social Sciences, Tampere University

<u>Tuuli Nilsson</u>: The speech and voice training method of Kristin Linklater: Acoustic effects and learning experiences.

Tero Ikävalko: Male CCM singers' resonance strategies in loud and high-pitched singing

<u>Marcelo Saldias O'Hrens</u>: Economic Voice Training for Contemporary Commercial Music Singers: Semi-occluded Vocal Tract Based-Techniques

Marja Suurpalo: Effects of 4 year actor's training on voice.

<u>Jaana Kuoppala</u>, University of Helsinki (co-supervision). Development of perceptual evaluation system for singing.

<u>Anne Väisänen</u>, University of Eastern Finland (co-supervision), Markers of deception: prosodic features of lying in Finnish speech.

#### **Expert statements given**

<u>Dr Viggo Pettersen</u> for Professorship of Singing Voice and Voice Research, University of Stavanger, Norway, 2007

Mrs Margareta Thalén for Lecturership of Voice in Song and Speech, Stockholm Musikpedagogiska Institut (University College of Music Education in Stockholm), Sweden, 2007.

Dr Peter Murphy, for Promotion to Senior Lecturer, University of Limerick, Ireland, 2007.

<u>Dr Christer Gobl</u>, for Promotion to Senior Lecturer, Trinity College, Ireland, 2009.

Dr Maria Södersten, for Promotion to Adjunct Professor, Karolinska Institute, Stockholm, 2018.

<u>Dr Dong Liu</u>, for promotion to Senior Research Scientist, University of Science and Technology of China 2019.

# Scientific events organized

Festive seminar of the Department of Speech Communication and Voice Research at the University of Tampere 4.11.2004

Swedish and Finnish Voice Research Symposium, 5.11.2004 University of Tampere

International Multi-disciplinary Summer Training School on Voice Assessment, funded by Cost 2103 Action (Advanced Voice Function Assessment), 4.-6.8.2008, University of Tampere

The 6th International Conference on Voice Physiology and Biomechanics ICVBP2008, 6.-9.8.2008, University of Tampere

25. Fonetiikan päivät 11.-12. tammikuuta 2008 (The 25th Meeting of Finnish Phoneticians, January 11-12, 2008. University of Tampere, Finland.

Workshop on Speech Processing 28.01.2013. University of Tampere, Finland.

Seminar on Voice Research in Honour of Late Timo Leino, 16.9.2016, University of Tampere, Finland.

34. Fonetiikan päivät 2021 (The 34th Meeting of Finnish Phoneticians, Tampere University, Finland.

## Serving as peer reviewer (33 international scientific journals):

Journal of the Acoustical Society of America

Journal of Speech Language Hearing Research

Logopedics Phoniatrics Vocology

Folia Phoniatrica et Logopaedica

Journal of Voice

Journal of Nonverbal Behavior

Journal of Biomedical Signal Processing and Control

International Journal of Pediatric Otorhinolaryngology

Ampersand, International Journal of General and Applied Linguistics

Otolaryngology

Journal of Phonetics

Computer Speech and Language

Scandinavian Journal of Educational Research

Information

Journal of Special Education and Rehabilitation

International Journal of Speech-Language Pathology

Journal of Forensic, Legal & Investigative Sciences

Journal of Physical Rehabilitation Medicine

International Journal of Listening

Journal of Forensic Science and Criminology

Journal of Dentistry and Oral Biology

PLOS ONE

Medeniyet Medical Journal

International Archives of Communication Disorder

International Journal of Music Education

International Journal of Environmental Research and Public Health

Archive of Engineering Mechanics

Sensors
Springer Nature Scientific Reports
IEEE Transactions on audio, speech and language processing
Electronics
Scientific reports
Archive of Acoustics

# **Other Vocological Activities**

Studies in classical singing (Music School Pirkanmaan Musiikkiopisto 1981-82 with Marja Sepponen (later Rajakorpi); 1982-84 with Arja Rislakki, 1986-87 with Marita Koskinen; attendance in the Summer School of Singing in the Institute of Orivesi - Oriveden opisto - June 1984 studying with Aili Purtonen and in Joutseno August 1984, studying with Aili Purtonen and Matti Piipponen. In 1982 a one-month educational visit to Rome to study with Maestro Vesselin Georgiev Romanov. Since 2014 studies with Marita Rantanen (earlier Koskinen).

Participation in special speech training courses (Kate Ufema 2008, Kristin Linklater 2010)

# Courses instructed (in Speech Technique and Vocology, University of Tampere)

Basic Course in Voice and Speech

Personal Voice Analysis

Introduction to Vocology

Audio and Video Technique and Editing in Teaching and in Research (Part: Audio Technique)

Personal Voice Training

Reader's Theatre

Instrumental Research Methods in Vocology

Perceptual Analysis of Voice and Speech

Methods of Teaching Voice and Speech

Seminar in Scientific Literature

Candidate Seminar on Voice Research

Research Practicum

Pathological Voices

Theory of Voice Training

Master's Seminar

Post-graduate seminar.

# Supervision of Theses

Number of supervised candidate theses (BA): 31 Number of supervised master's theses (MA): 28