curriculum vitae

Arjo Loeve

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Focus — 'Fighting complexity with simplicity.'

As a researcher experienced in BioMechanical Engineering I currently work on:
- Well-cleanable medical instruments and rigidifiable flexible instruments,
- 'Engineering for Forensics', my research line aimed at forensic tools and workflow.

I believe the quintessence of creating successful solutions in medical engineering and forensics is to dissect each problem to its core in order to find the fundamental problems and to solve these problems with the solution that is as simple as possible, but not simpler.

Funded Projects Currently Running

2018– now — ***"Van opsporing tot bewijsvoering: plaats delictonderzoek voor de hele strafketen" – CSI-PEEQ – Crime Scene Investigation Parameters for Efficiency, Efficacy and Quality***
Funded by Politie en Wetenschap || Developing workflow models of and optimized work processes for crime scene investigation.

2017 – now — ***Therminus – Thermodynamic model and quantitative measurement devices for time of death determination***
Funded by Ministerie van Veiligheid en Justitie || Developing devices for on-crime-scene measurement of cadaver weight and of heat flow through clothing and into surfaces on which a cadaver rests.

2017 – now — ***FreeRef – Contactless size reference for evidence photography***
Funded by Nederlands Forensisch Instituut || Developing a virtual size reference system for quick and contamination-free photography of pieces of evidence.

2016 – now — ***HiPerNav "High Performance Soft-tissue Navigation"***
Funded by European Union Horizon 2020 - Marie Skłodowska-Curie grant || Workflow and visualization optimization for soft-tissue navigation in liver surgery.

2016 – now — ***MOOC "Forensic Engineering – learning from failure"***
Funded by TUDelft Online Learning & Delft Security Institute || Building and running an edX.org massive open online course about forensic engineering.

Education

2007 – 2012 — ***Technische Universiteit Delft***
PhD || 'Shaft-Guidance for Flexible Endoscopes'. Next to the core research, many education, research and consultancy activities on several topics.

2000 – 2006 — ***Technische Universiteit Delft***
MSc || 'Design of an Easy-to-Make Shape-Memory Colonoscope'. Master Mechanical Engineering, variant BioMedical Engineering. (18 OKT 2006)
BSc 'Evaluation of a Joystick Steered Colonoscope'. (21 OKT 2004)

1994 – 2000 — ***Reformatorische Scholengemeenschap Gomarus Gorinchem***
VWO ||Additional activities: organized social events, trained teachers in video capturing and editing using self-built switchboxes, wrote accounting software.

Training

2018 JAN	***Technische Universiteit Delft/4TU – BKO*** University Teaching Qualification
2017 OKT – 2017 NOV	***Technische Universiteit Delft – BKO*** Students Supervision Techniques
2017 SEP	***Technische Universiteit Delft – Online Learning Center*** Writing a Script
2017 FEB – 2017 MAY	***Technische Universiteit Delft – BKO*** Developing Tests and Assignments
2014 SEP	***Philips B.V.*** Clinical Ultrasound Imaging
2011 FEB	***NEN-Advies Medische Hulpmiddelen*** Product Design According to NEN-EN-ISO 13485
2010 DEC – 2011 FEB	***Aletta Wubben – Personal and Organisation Development*** Workshop Stress Coping
2009 JUN – 2010 JAN	***Nessun Dorma – Eva Berends*** Intervision Techniques
2009 SEP – 2009 OKT	***Technische Universiteit Delft – BKO*** Personal Supervision of Students
2008 JUN	***Fontys Conservatorium Tilburg – Inge Mulder*** Vocal Techniques & Speech Training
2008 MAY – 2008 JUN	***Technische Universiteit Delft – BKO*** Active & Collaborative Learning
2008 JUN	***European Association of Endoscopic Surgery*** Post Graduate Course II – NOTES and Emerging Technologies

Work Experience

2016 MAY – now ***Technische Universiteit Delft***

Senior Staff Lecturer & Researcher || Faculty of Mechanical, Maritime & Materials Engineering, department of BioMechanical Engineering. Projects and tasks:

- *'Engineering for Forensics'* research line in cooperation with the Netherlands Forensic Institute, Forensic Medicine dept. of University of Oslo (Norway), University of Amsterdam, VU Amsterdam, and Dutch Police, Army, and Public Prosecutor. Advancing tools and methods for forensics.
- *Lecturer & Block Coordinator* for Bachelor Clinical Technology and Bachelor and Master Mechanical Engineering. Lecturing Matlab, Medical Instrument Design & Safety, Research Methodology. Responsible for BSc final projects. Supervising about thirty graduation students yearly.
- *Online course developer & lecturer* for Massive Open Online Course "Engineering for Forensics - Learning from Failures" on www.edX.org.

2012 AUG – 2016 MAY ***Technische Universiteit Delft & international partners***

PostDoc || Faculty of Mechanical, Maritime & Materials Engineering, department of BioMechanical Engineering. Projects and tasks:

- *'Engineering for Forensics':* advancing forensic tools and methods.
- *Lecturer & Block Coordinator* for Bachelor Clinical Technology and Bachelor and Master Mechanical Engineering.
- *'FUSIMO – Patient Specific Modeling and Simulation of Focused Ultrasound in Moving Organs'* European FP7 International Project
- *'Multi-Photodiode Array – Measuring Blood Pressure Wave Speeds with Compact Optical Sensors'* project with Erasmus Medical Centre, Rotterdam

2013 JUL – 2014 SEP	***Academisch Medisch Centrum, Amsterdam*** **Scientific Researcher** || Department of Orthopaedic Surgery. 'Vibrant Vision – Non-Invasive Detection of Cartilage Damage'
2011 FEB – 2012 AUG	***Technische Universiteit Delft*** **PostDoc** || Faculty of Electrical Engineering, Mathematics & Computer Science, department of Electrical Instrumentation. 'Design of a Dental Drill with Integrated Laser Optics'
2007 FEB – 2012 FEB	***Technische Universiteit Delft & Pentax Tokyo, Japan*** **PhD candidate** || Faculty of Mechanical, Maritime & Materials Engineering, department of BioMechanical Engineering, payed by Pentax Tokyo, Japan. 'Design of an Easy-to-Make Shape-Memory Colonoscope'
2011 DEC – now	***Arjo Loeve Fotografie & Design, Hardinxveld-Giessendam*** **Photographer and owner** || (www.arjoloeve.nl) Wedding, portrait, art, events, and product photography.

Internships & Side Jobs

2003 – 2007	***Imko B.V., Hardinxveld-Giessendam*** **Software Developer** || Design and realisation of software packages for in-line printing of labels in packaging lines, HACCP cleaning management, OEEE monitoring.
2004 OCT – 2005 MAR	***Academisch Medisch Centrum, Amsterdam*** **INTERNSHIP Researcher** || Analysis of colonoscope insertion problems & pain.
2002 JUN – 2002 JUL	***Imko B.V., Hardinxveld-Giessendam*** **INTERNSHIP Software Developer** || Design and realisation of software package for machine and production line maintenance and management.
2001	***Compaq, Gorinchem*** **Rework Mechanic** || Assembling, adapting, and installing computer systems.
2000	***Imko B.V., Hardinxveld-Giessendam*** **Interim Storehouse Manager** || Stock control and team supervision.
1996 – 2000	***De Vroed & Bouter, Hardinxveld-Giessendam*** **Production & Sales** || Glass cutting, crafts work frame making, shop manager

Boards & Commissions

2017 – now	***Professional Behaviour Board of the Clinical Technology Bachelor and Technical Medicine Master*** Co-founder and advisor on behalf of TU Delft
2016 – now	***Coordinator Co van Ledden Hulsebosch Center for forensic science and medicine*** Coordinator on behalf of TU Delft
2015 – 2016	***Bacterial Outbreak Related to ERCP Scopes*** Independent expert advisor.
2014	***Sterilisation Issues with Orthopaedic Instruments*** Independent expert advisor in a board managing and investigating sterilisation issues occurring in a sterilisation company and a Rotterdam hospital.
2014 – 2016	***int. Society for Medical Innovation & Technology Joint Conference with Design of Medical Devices – European Edition 2016*** Member of the organization committee. Delft, the Netherlands
2013 – 2014	***Design of Medical Devices Conference – European Edition 2014*** Member of the organization committee. Delft, the Netherlands.

2012 – 2013	***Bacterial Outbreak Related to ERCP Scopes*** Independent expert advisor for Erasmus Medical Centre Rotterdam, Olympus B.V., Dutch Health Care Inspectorate (IGZ) and the Dutch National Institute for Public Health and the Environment (RIVM).
2012 – 2013	***Design of Medical Devices Conference – European Edition 2013*** Member of the organization committee. Delft, the Netherlands.
2011 – now	***Evacuation Team*** Member. TU Delft, faculty of Mechanical, Maritime & Materials Engineering.
2005 – 2006	***NRC Academische Jaarprijs – Battle of the Universities*** One of the four members of the TU Delft team BITE (Bio-Inspired Technology).
2003 – 2007	***Youth Choir 'Op Weg'*** Bass, PR materials designer for concerts and CD's, monthly magazine editor.
2001 – 2002	***Kids Summer Festival 'Speel-In'*** Member of the organization committee and playground supervisor.

Awards

2019	***VariScopic – Teacher of the Year 2018-2019*** Clinical Technology Bachelor, Delft University of Technology.
2019	***Institution of Civil Engineers – Publishing Award Telfort Premium Prize*** Received for 'Improving reliability in forensic engineering: the Delft approach', Forensic Engineering 171(3): 99–106.
2011	***BME Conference – Best Oral Presentation*** Received for 'TraceWard – Contamination prevention for vaginal sampling in rape victims'. Egmond aan Zee, the Netherlands.
2009	***EAES Conference – Best Technology Presentation*** Received for 'The Vacu-SL Mechanism – Vacumized particles for rigidity control in flexible endoscopes'. Prague, Czechia

Scientific Publications

2019	***'Measuring pulse wave velocity with a novel, simple sensor on the fingertip: a feasibility study in healthy volunteers'*** M.H.N. van Velzen, S.P. Niehof, E.G. Mik, A.J. Loeve. Biomedical Physics & Engineering Express, 5(6), 10p.
2019	***'Independent root cause analysis of contributing factors, including dismantling of two duodenoscopes, to an outbreak of multidrug-resistant Klebsiella pneumonia'*** A.W. Rauwers, A. Troelstra, A.C. Fluit, C. Wissink, A.J. Loeve, F.P. Vleggaar, M.J. Bruno, M.C. Vos, L.G.M. Bode, J.F. Monkelbaan. Gastrotintestinal Endoscopy, IN PRESS, 12p.
2019	***'Minimizing aerosol bone dust during autopsies'*** J.M.E. Pluim, A.J. Loeve, R.R. Gerretsen. Forensic Science, Medicine, and Pathology, 15(3), pp. 404-407.
2019	***'The influence of contact force on forensic trace collection efficiency when sampling textiles with adhesive tape'*** S. Damsteeg-van Berkel, F. Beemster, J. Dankelman, A.J. Loeve. Forensic Science International, 298, pp. 278-283.
2019	***'Water jet applicator for interface tissue removal in minimally invasive hip refixation: Testing the principle and design of prototype'*** G. Kraaij, A.J. Loeve, J. Dankelman, R.G.H.H. Nelissen, E.R. Valstar. Journal of Medical Devices, 13(2), 11 p.

2019 ***'Surgical process modelling strategies: Which method to choose for determining workflow?'***
M. Gholinejad, A.J. Loeve, J. Dankelman. Minimally Invasive Therapy & Allied Technologies, 28(2), pp. 91-105.

2019 ***'Modeling of inflicted head injury by shaking trauma in children: what can we learn? Part II: A systematic review of mathematical and physical models'***
J.P. van Zandwijk, M.E.M. Vester, R.A.C. Bilo, R.R. van Rijn, A.J. Loeve. Forensic Science, Medicine, and Pathology 15(3), pp. 408-422.

2019 ***'Modeling of inflicted head injury by shaking trauma in children: what can we learn? Part I: A systematic review of animal models'***
M.E.M. Vester, R.A.C. Bilo, A.J. Loeve, R.R. van Rijn, J.P. van Zandwijk. Forensic Science, Medicine, and Pathology 15(3), pp. 423-436.

2018 ***'Improving reliability in forensic engineering: the Delft approach'***
K. Terwel, M. Schuurman, A.J. Loeve, Proceedings of the Institution of Civil Engineers – Forensic Engineering 171(3), pp. 99-106.

2018 ***'Comparison between pulse wave velocities measured using Complior and measured using Biopac'***
M.H.N. van Velzen, R.J. Stolker, A.J. Loeve, S.P. Niehof, E.G. Mik, Journal of Clinical Monitoring and Computing, 33(2), pp. 241-247.

2018 ***'Aerosol Production during Autopsies: The Risk of Sawing in Bone'***
J.M.E. Pluim, L. Jimenez-Bou, R.R. Gerretsen, A.J. Loeve, Forensic Science International 289, pp. 260-267.

2017 ***'Design and functional testing of a novel blood pressure pulse wave velocity sensor'***
M.H.N. van Velzen, A.J. Loeve, E.G. Mik, S.P. Niehof, ASME Journal of Medical Devices 12(1), 7 p.

2017 ***'Onderzoek Olympus TJF-Q180V Scopen UMC Utrecht n.a.v. gevonden contaminatie na reiniging en desinfectie'***
A.J. Loeve, Rapport voor de Inspectie Gezondheidszorg

2017 ***'Increasing accuracy of pulse transit time measurements by automated elimination of distorted photoplethysmography waves'***
M.H.N. van Velzen, A.J. Loeve, S.P. Niehof, E.G. Mik, Medical & Biological Engineering & Computing 55(11), 12 p.

2016 ***'Workflow and Intervention Times of MR-guided Focused Ultrasound– predicting the impact of new techniques'***
A.J. Loeve, J. Al-Issawi, F. Fernandez-Gutierrez, T. Langø, J. Strehlow, S. Haase, M. Matzko, A. Napoli, A. Melzer, J. Dankelman, Journal of Biomedical Informatics 60, pp. 38-48

2015 ***'Effect of heat-induced pain stimuli on pulse transit time and pulse wave amplitude in healthy volunteers'***
M.H.N. van Velzen, A.J. Loeve, M.C. Kortekaas, S.P. Niehof, E.G. Mik, R.J. Stolker, Physiological Measurement 37(1), pp.52-66

2015 ***'An integrated model-based software for FUS in moving abdominal organs'***
M. Schwenke, J. Strehlow, S. Haase, J. Jenne, C. Tanner, T. Langø, A.J. Loeve, I. Karakitsios, X. Xiao, Y. Levy, G. Sat, M. Bezzi, S. Braunewell, M. Guenther, A. Melzer, T. Preusser, International Journal of Hyperthermia 31(3), pp.240-250

2015 ***'Withdrawal of a novel-design duodenoscope ends outbreak of a VIM-2-producing Pseudomonas aeruginosa'***
C.J. Verfaillie, M.J. Bruno, A.F. voor in 't Holt, J.G. Buijs, J.W. Poley, A.J. Loeve, J.A. Severin, L.F. Abel, B.J. Smit, I. de Goeij, M.C. Vos, Endoscoy 47(6), pp. 493-502

2014 ***'A novel ultrasound technique for detection of osteochondral defects in the ankle joint: A parametric and feasibility study'***

N. Sarkalkan, A.J. Loeve, K. van Dongen, G.J.M. Tuijthof, A. Zadpoor, Sensors 15(1), pp. 148-165

2014 ***'Onderzoek Olympus TJF-Q180V Scoop n.a.v. gevonden contaminatie na reiniging en desinfectie'***
A.J. Loeve, Rapport voor de Inspectie Gezondheidszorg

2014 ***'Static friction of stainless steel wire rope-rubber contacts'***
A.J. Loeve, T. Krijger, W. Mugge, P. Breedveld, D. Dodou, J. Dankelman. Wear 319: 11p.

2013 ***'Mechanical analysis of insertion problems and pain during colonoscopy: Why highly skill-dependent colonoscopy routines are necessary in the first place… and how they may be avoided'***
A.J. Loeve, P. Fockens, P. Breedveld. Canadian Journal of Gastroenterology 27(5), 10p.

2013 ***'In vitro validation of vaginal sampling in rape victims: the problem of Locard's principle'***
A.J. Loeve, R.A.C. Bilo, E. Emirdag, M. Sharify, F.W. Jansen, and J. Dankelman. Forensic Science, Medicine, and Pathology 9: pp. 154-162

2012 ***'Shaft-Guidance for Flexible Endoscopes'***
A. J. Loeve, Dissertation, ISBN 978-94-6191-329-6, 260p.

2012 ***'Cutaneous manifestations of child abuse and their differential diagnostics'***
R.A.C. Bilo et al., Book chapter, ISBN 978-3-642-29286-6, 264p.

2012 ***'Endoscope shaft-rigidity control mechanism: FORGUIDE'***
A.J. Loeve, D.H. Plettenburg, P. Breedveld, J. Dankelman. IEEE Transactions on Biomedical Engineering 59 (2): 10p.

2010 ***'Polymer rigidity control for endoscopic shaft-guide 'Plastolock' - A feasibility study.'***
A.J. Loeve, J.H. Bosma, P. Breedveld, D. Dodou, J. Dankelman. Journal of Medical Devices 4 (4): 6p.

2010 ***'Vacuum packed particles as flexible endoscope guides with controllable rigidity'***
A.J. Loeve, O.S. van de Ven, J.G. Vogel, P. Breedveld, J. Dankelman. Journal of Granular Matter 12 (6):12p.

2010 ***'Scopes too flexible…and too stiff'***
A.J. Loeve, P. Breedveld, J. Dankelman. IEEE Pulse 1 (3):16p.

2011 – now ***Reviewer for various journals and conferences***
Journal of Forensic Research, Sensors & Actuators – A. Physical Registration, IEEE Transactions of Biomedical Engineering, Journal of Mechanics in Medicine and biology, Design of Medical Devices Conference – American Editions en European Editions, Engineering Structures, ASME Journal of Medical Devices, ASME Design of Medical Devices Conference, IEEE International Conference on Robotics and Automation, IEEE/RSJ International Conference on Intelligent Robots and Systems, Tribology International, Medical Devices – Evidence and Research.

Invited

2019 ***Landelijk Expertise Centrum Kindermishandeling – Congress 2019***
Invited lecture 'Biomechanische aspecten van schedelhersenletsel bij schudden'. Pathé Utrecht Leidsche Rijn, the Netherlands.

2019 ***European Congress of Neuropathology – Forensic Course 2019***
Invited lecture 'Inflicted Head Injury by Shaking Trauma in Infants'. AMC, Amsterdam, the Netherlands.

2019 ***Frontiers of Forensic Science – Lectures series 2019***
Invited lecture 'Modelling shaken babies'. Universiteit van Amsterdam, Amsterdam, the Netherlands.

2018 ***Co van Ledden Hulsebosch Center – Annual Symposium 2018***
Invited lecture 'Innovating Forensic Tools – Fighting complexity with simplicity'. Universiteit van Amsterdam, Amsterdam, the Netherlands.

2017 ***Forensisch Medisch Genootschap – Annual Symposium 2017***
Invited lecture 'Biomechanics of Inflicted Head Trauma in Infants'. Jaarbeurs, Utrecht, the Netherlands.

2017 ***Pediatric Forensic Medicine and Clinical Forensic Medicine – Soria Moria 2017***
Invited lecture 'Biomechanics of Inflicted Head Trauma in Infants'. Soria Moria, Oslo, Norway.

2016 ***European Congress of Neuropathology – Forensic Course 2016***
Invited lecture 'Biomechanics of Inflicted Head Trauma in Infants'. AMC, Amsterdam, the Netherlands.

2015 ***Design of Medical Devices Conference – European Edition 2015***
Invited session organizer 'Design by Dissection'. ACMIT, Wiener Neustadt, Austria.

2014 ***Workshop on Biomedical Engineering***
Invited lecture 'Design of a bone drill with integrated OCT optics and no coupling losses'. Universidade de Lisboa, Lisbon, Portugal.

2008 ***European Society for Gynaecological Endoscopy***
Invited lecture 'Memorizing Shape'. Passenger Terminal, Amsterdam, the Netherlands.

Conferences

2019 ***American Academy of Forensic Sciences – Annual Scientific Meeting***
Poster, last author || 'Modeling of inflicted head injury by shaking in children: what can we learn? Part II: Mathematical and physical models'. Baltimore Convention Center, Baltimore, Maryland, U.S.A..

2019 ***American Academy of Forensic Sciences – Annual Scientific Meeting***
Poster, 3rd author || ''Modeling of inflicted head injury by shaking in children: what can we learn? Part I: Animal models''. Baltimore Convention Center, Baltimore, Maryland, U.S.A..

2019 ***BioMedical Engineering (BME)***
Oral, last author || 'The risk of sawing in bone'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2019 ***BioMedical Engineering (BME)***
Poster, 2nd author || 'Surgical process modelling strategies: How to determine workflow?'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2019 ***BioMedical Engineering (BME)***
Poster, 6th author || 'Sprint Splint – A 3D-printed, rapidly customized, patient specific wrist splint'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2018 ***Co van Ledden Hulsebosch Center – Annual Symposium***
Poster, last author || 'Thresholds for the assessment of inflicted head injury by shaking trauma in infants'. Universiteit van Amsterdam, Amsterdam, the Netherlands.

2016 ***Lowlands Science (LL16)***
Experiments || 'Finger prints on activity level' One of nine teams selected to experiment during the Lowlands festival. Biddinghuizen, the Netherlands.

2015 ***BioMedical Engineering (BME)***
Oral, 2nd author || 'Functional testing of a novel pulse wave velocity sensor'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2015 ***BioMedical Engineering (BME)***
Poster || 'Engineering for Forensics: Spreading of harmful bone dust due to sawing. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2015 ***BioMedical Engineering (BME)***

Poster, 2nd author || 'A novel ultrasound technique for detection of osteochondral defects in the ankle joint. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2014 ***Design of Medical Devices – Europe Edition (DMDeur)***
Oral presentation & interactive demo session || 'Chairlift compatible sit-snowboard for paraplegics'. Aula TU Delft, the Netherlands.

2013 ***Wetenschapsdag Anesthesiologie (NVAw)***
Poster, 2nd author || 'Can pulse transit time be used as an objective indicator of pain?'. FIGI Zeist, the Netherlands.

2013 ***Society for Medical Innovation and Technology (SMIT)***
Oral || 'Sub-millimeter-size opto-mechanical couplings for fast rotational OCT-scanning'. Kurhaus Baden-Baden, Germany.

2013 ***Society for Medical Innovation and Technology (SMIT)***
Oral, 2nd author || 'Can a simple photodiode be used to detect pain?'. Kurhaus Baden-Baden, Germany.

2013 ***Society for Medical Innovation and Technology (SMIT)***
Oral, 6th author || 'The FUSIMO prototype: Patient-specific prediction of focused ultrasound surgery in moving organs'. Kurhaus Baden-Baden, Germany.

2013 ***BioMedical Engineering (BME)***
Poster || 'Sub millimeter-size opto-mechanical couplings for fast rotational OCT-scanning'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2013 ***BioMedical Engineering (BME)***
Poster, 3rd author || 'Effect of heat-induced pain stimuli on pulse transit time'. Zeeduin Hotel Egmond aan Zee, the Netherlands.

2013 ***Optics in Cardiology (OIC)***
Poster || 'Opto-mechanical couplings for fast rotational OCT-scanning for sub-millimeter size applications'. Lantaren Venster Rotterdam, the Netherlands.

2012 ***Society for Medical Innovation and Technology (SMIT)***
Poster || 'Sub-millimeter-size opto-mechanical couplings for fast rotational OCT-scanning'. AXA Auditori Barcelona, Spain.

2011 ***BioMedical Engineering (BME)***
Oral || 'TraceWard – Contamination prevention for vaginal sampling in rape victims'. Zeeduin Hotel Egmond aan Zee, Netherlands.

2010 ***International Conference on the Survivors of Rape***
Oral || 'TraceWard – Contamination Prevention for Vaginal Sampling in Rape Victims'. UMC Utrecht, the Netherlands.

2010 ***Society for Medical Innovation and Technology (SMIT)***
Oral || ''PlastoLock' Endoscope Shaft-Guide, rigidity control by safe heating'. St. Olavs Hospital Trondheim, Norway.

2010 ***ASME Design of Medical Devices (DMD)***
Poster || 'Polymer rigidity control for endoscopic shaft-guide 'PlastoLock''. Radisson University Hotel Minneapolis, MN, U.S.A..

2010 ***Nederlandse Vereniging voor Endoscopische Chirurgie (NVEC)***
Poster || 'Shaft guidance for flexible endoscopes… and all that should now be rigid and then compliant'. Amersfoort, the Netherlands.

2009 ***Society for Medical Innovation and Technology (SMIT)***
Oral || 'FORGUIDE: Shaft-guide for flexible endoscopes'. Conference Casino Sinaia, Romania.

2009 ***European Association for Endoscopic Surgery (EAES)***
Oral || 'The Vacu-SL Mechanism – Vacumized particles for rigidity control in flexible endoscopes'. Convention Centre Prague, Czechia.

2009 ***BioMedical Engineering (BME)***
Oral || 'Vacumized particles for rigidity control in flexible endoscopes'. Zeeduin Hotel Egmond aan Zee, Netherlands.

2008 ***Society for Medical Innovation and Technology (SMIT)***

Oral || 'Review & analysis on insertion difficulties & pain during colonoscopy'. Altes AKH Vienna, Austria.

2008 ***European Association of Endoscopic Surgery (EAES)***

Oral || 'Memorizing the shape of flexible instruments'. International Fairs Stockholm, Sweden.

2003 ***Society for Medical Innovation and Technology (SMIT)***

Oral || 'Evaluation of a joystick-controlled colonoscope'. AMC Amsterdam, the Netherlands.

Skills

Languages

Mother tongue Dutch and native proficiency in English (CEFR Level C2).
Basics in French, German and Portuguese.

Software

Highly experienced professional user of major typesetting software, graphic design software, video-editing software and 3D CAD software (e.g., LaTeX, Adobe, Camtasia, Macromedia, Pro/Engineer, Solidworks), programming and scripting languages (Matlab, VBA, .NET, Delphi, C++, OpenGL, Arduino) and common Microsoft software.

Sports & Creativity

Professional photographer.
Pianist, organist and singer.
Wind sailor and speed skater.