Curriculum Vitae

Tom de Geus

"It's not the answers you give, but the questions you ask" – Voltaire

Personal information

Dr.ir. Tom de Geus
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Dutch (mother tongue),
English (fluent), French (fluent),
German (passive B2/C1, active A2/B1)

Education

1.	PhD Mechanical Engineering (*cum laude*). Defended: 03.05.2016. Promotor: Prof.dr.ir. Marc Geers, co-promotor: Dr.ir. Ron Peerlings. Eindhoven University of Technology (TU/e), The Netherlands.	04.2012 – 04.2016
2.	Graduate School Engineering Mechanics. Supported by 3TU (Joint Universities of Technology in The Netherlands).	04.2012 – 10.2015
3.	Master Mechanical Engineering (*with great appreciation*). Thesis directors: Prof.dr.ir. Marc Geers, dr.ir. Ron Peerlings. Eindhoven University of Technology, The Netherlands.	09.2009 – 08.2012
4.	Internship (*excellent evaluation*). Director: Prof.dr. Katia Bertoldi. Harvard University, School of Engineering and Applied Sciences, Cambridge, USA.	09.2010 – 11.2010
5.	Bachelor Mechanical Engineering (*with great appreciation*). Minor: entrepreneurship. Eindhoven University of Technology, The Netherlands.	09.2004 – 12.2009
6.	Pre-university secondary education. Specialisation: science and technology. Lorentz Casimir Lyceum, Eindhoven, The Netherlands.	09.1997 – 06.2004

Employment history (academic positions only)

1.	Ambizione fellow (see fellowships). Institute of Physics, École Polytechnique Fédérale de Lausanne (EPFL), CH.	10.2019 – current
2.	Rubicon post-doc fellow (see fellowships). Director: Prof.dr. Matthieu Wyart. Institute of Physics, École Polytechnique Fédérale de Lausanne (EPFL), CH.	09.2016 – 10.2019
3.	Post-doc (valorisation project for M2i and TATA Steel Europe). Director: Prof.dr.ir. Marc Geers. Department of Mechanical Engineering, Eindhoven University of Technology, NL.	04.2016 – 07.2016
4.	PhD researcher. Directors: Prof.dr.ir. Marc Geers, dr.ir. Ron Peerlings. Department of Mechanical Engineering, Eindhoven University of Technology, NL. Materials Innovation Institute (M2i), Delft, NL.	04.2012 – 04.2016

Prizes, awards, fellowships

Prizes

1. Martinus van Marum award for best PhD thesis in the engineering sciences in a period of five years, Koninklijke Hollandsche Maatschappij der Wetenschappen (Royal Holland Society of Sciences and Humanities). Prize: acceptance colloquium, a medal, and 12500 €. — 06.2017
2. Best PhD thesis in Mechanical Engineering of the calendar year 2016, Eindhoven University of Technology (TU/e). Prize: 250 €. — 05.2017

Awards

1. Winner of the 7th ECCOMAS PhD Olympiad. Award: 500 €. — 09.2017
2. Poster award for best innovative research value, M2i annual research conference. Award: 250 €. — 12.2016
3. Poster award, M2i annual research conference. Award: 250 €. — 12.2013
4. Entrepreneurship award for best business case, Eindhoven University of Technology. Award: 1000 €. — 02.2008

Fellowships

1. Ambizione fellowship, Grant No. PZ00P2_185843 Swiss National Science Foundation (FNSF). Grant: 567 kCHF. — 09.2019
2. Rubicon fellowship, Grant No. 680-50-1520 The Netherlands Organisation for Scientific Research (NWO). Grant: 160 k€. — 09.2016

Publications (chronological)

[1] E. El Sergany, M. Wyart, and T.W.J. de Geus. Armouring of a frictional interface by mechanical noise. *arXiv preprint: 2301.13802*, 2023. doi: 10.48550/arXiv.2301.13802.

[2] S. Poincloux, P.M. Reis, and T.W.J. de Geus. Stick-slip synchronization in stack of elastically coupled frictional interfaces. *Phys. Rev. Res.*, 2023. doi: 10.48550/arXiv.2301.13745.

[3] T.W.J. de Geus. E-L-M, simple principles to keep data and code alive. *Prepint*, 2023. doi: 10.31222/osf.io/8tzb9.

[4] T.W.J. de Geus and M. Wyart. Scaling theory for the statistics of slip at frictional interfaces. *Phys. Rev. E*, 106(6):065001, 2022. doi: 10.1103/PhysRevE.106.065001.

[5] W. Ji, T.W.J. de Geus, E. Agoritsas, and M. Wyart. Mean-field description for the architecture of low-energy excitations in glasses. *Phys. Rev. E*, 105(4):044601, 2022. doi: 10.1103/PhysRevE.105.044601.

[6] M. Popović, T.W.J. de Geus, W. Ji, A. Rosso, and M. Wyart. Scaling Description of Creep Flow in Amorphous Solids. *Phys. Rev. Lett.*, 129(20):208001, 2022. doi: 10.1103/PhysRevLett.129.208001.

[7] M. Popović, T.W.J. de Geus, W. Ji, and M. Wyart. Thermally activated flow in models of amorphous solids. *Phys. Rev. E*, 104(2):025010, 2021. doi: 10.1103/PhysRevE.104.025010.

[8] J. Vondřejc and T.W.J. de Geus. Energy-based comparison between the Fourier–Galerkin method and the finite element method. *J. Comput. Appl. Math.*, 374:112585, 2020. doi: 10.1016/j.cam.2019.112585.

[9] W. Ji, T.W.J. de Geus, M. Popović, E. Agoritsas, and M. Wyart. Thermal origin of quasilocalized excitations in glasses. *Phys. Rev. E*, 102(6):062110, 2020. doi: 10.1103/PhysRevE.102.062110.

[10] J.C. Volmer, T.W.J. de Geus, and R.H.J. Peerlings. Improving the initial guess for the Newton-Raphson protocol in time-dependent simulations. *J. Comput. Phys.*, 420:109721, 2020. doi: 10.1016/j.jcp.2020.109721.

[11] T.W.J. de Geus, M. Popović, W. Ji, A. Rosso, and M. Wyart. How collective asperity detachments nucleate slip at frictional interfaces. *Proc. Natl. Acad. Sci.*, 116(48):23977–23983, 2019. doi: 10.1073/pnas.1906551116.

[12] W. Ji, M. Popović, T.W.J. de Geus, E. Lerner, and M. Wyart. Theory for the density of interacting quasilocalized modes in amorphous solids. *Phys. Rev. E*, 99(2):023003, 2019. doi: 10.1103/PhysRevE.99.023003.

[13] M. Popović, T.W.J. de Geus, and M. Wyart. Elastoplastic description of sudden failure in athermal amorphous materials during quasistatic loading. *Phys. Rev. E*, 98(4):040901, 2018. doi: 10.1103/PhysRevE.98.040901.

[14] T.W.J. de Geus, R.H.J. Peerlings, and M.G.D. Geers. Fracture in multi-phase materials: Why some microstructures are more critical than others. *Eng. Fract. Mech.*, 169:354–370, 2017. doi: 10.1016/j.engfracmech.2016.08.009.

[15] J. Zeman, T.W.J. de Geus, J. Vondřejc, R.H.J. Peerlings, and M.G.D. Geers. A finite element perspective on nonlinear FFT-based micromechanical simulations. *Int. J. Numer. Methods Eng.*, 111(10):903–926, 2017. doi: 10.1002/nme.5481.

[16] T.W.J. de Geus, J. Vondřejc, J. Zeman, R.H.J. Peerlings, and M.G.D. Geers. Finite strain FFT-based non-linear solvers made simple. *Comput. Methods Appl. Mech. Eng.*, 318:412–430, 2017. doi: 10.1016/j.cma.2016.12.032.

[17] T.W.J. de Geus, M. Cottura, B. Appolaire, R.H.J. Peerlings, and M.G.D. Geers. Fracture initiation in multi-phase materials: A systematic three-dimensional approach using a FFT-based solver. *Mech. Mater.*, 97:199–211, 2016. doi: 10.1016/j.mechmat.2016.02.006.

[18] T.W.J. de Geus, R.H.J. Peerlings, and M.G.D. Geers. Competing damage mechanisms in a two-phase microstructure: How microstructure and loading conditions determine the onset of fracture. *Int. J. Solids Struct.*, 97–98:687–698, 2016. doi: 10.1016/j.ijsolstr.2016.03.029.

[19] T.W.J. de Geus, C. Du, J.P.M. Hoefnagels, R.H.J. Peerlings, and M.G.D. Geers. Systematic and objective identification of the microstructure around damage directly from images. *Scr. Mater.*, 113: 101–105, 2016. doi: 10.1016/j.scriptamat.2015.10.007.

[20] T.W.J. de Geus, F. Maresca, R.H.J. Peerlings, and M.G.D. Geers. Microscopic plasticity and damage in two-phase steels: On the competing role of crystallography and phase contrast. *Mech. Mater.*, 101:147–159, 2016. doi: 10.1016/j.mechmat.2016.07.014.

[21] J. van Beeck, F. Maresca, T.W.J. de Geus, P.J.G. Schreurs, and M.G.D. Geers. Predicting deformation-induced polymer–steel interface roughening and failure. *Eur. J. Mech. - ASolids*, 55: 1–11, 2016. doi: 10.1016/j.euromechsol.2015.08.002.

[22] T.W.J. de Geus, J.E.P. van Duuren, R.H.J. Peerlings, and M.G.D. Geers. Fracture initiation in multi-phase materials: A statistical characterization of microstructural damage sites. *Mater. Sci. Eng. A*, 673:551–556, 2016. doi: 10.1016/j.msea.2016.06.082.

[23] T.W.J. de Geus, R.H.J. Peerlings, and M.G.D. Geers. Microstructural modeling of ductile fracture initiation in multi-phase materials. *Eng. Fract. Mech.*, 147:318–330, 2015. doi: 10.1016/j.engfracmech.2015.04.010.

[24] T.W.J. de Geus, R.H.J. Peerlings, and M.G.D. Geers. Microstructural topology effects on the onset of ductile failure in multi-phase materials - A systematic computational approach. *Int. J. Solids Struct.*, 67–68:326–339, 2015. doi: 10.1016/j.ijsolstr.2015.04.035.

[25] T.W.J. de Geus, R.H.J. Peerlings, and M.G.D. Geers. Topology and Morphology Influences on the Onset of Ductile Failure in a Two-phase Microstructure. *Procedia Mater. Sci.*, 3:598–603, 2014. doi: 10.1016/j.mspro.2014.06.099.

[26] T.W.J. de Geus, R.H.J. Peerlings, and C.B. Hirschberger. An analysis of the pile-up of infinite periodic walls of edge dislocations. *Mech. Res. Commun.*, 54:7–13, 2013. doi: 10.1016/j.mechrescom.2013.08.010.

Conferences (invited oral)

[1] *A Theory for the Statistics of Slip at a Frictional Interface: Unifying Rate-and-State and Depinning Approaches.* Friction and wear across scales, Ascona, Switzerland, 2022.

[2] *Scaling Theory for the Nucleation of Slip at the Frictional Interface.* Friction and faulting workshop, Njord Center, Oslo, Norway, 2022.

[3] *Critical Flow Properties of a Frictional Interface.* JMC17. 17èmes journées de la matière condensée, France, 2021.

[4] *How Is Slip Nucleated at a Frictional Interface?* SES 2019. 56th. Annual technical meeting of the Society of Engineering Science, Saint Louis, United States, 2019.

[5] *Does Inertia Cause Stick-Slip Friction?* EarthFlows meeting: Complexity in solid earth and geophysical flows, Oslo, Norway, 2019.

[6] *Nucleation of Slip at the Frictional Interface (Approximative Title).* 55th annual technical meeting of the Society of Engineering Science (SES), Madrid, Spain, 2018.

[7] *Fracture Nucleation in Multi-Phase Metals (Approximative Title).* YIC 2019. Seventh ECCOMAS PhD Olympiad, IV ECCOMAS Young Investigators Conference, Milan, Italy, 2017.

[8] *Fracture in Multi-Phase Materials: Why Some Microstructures Are More Critical than Others.* CFRAC 2017. Fifth International Conference on Computational Modeling of Fracture and Failure of Materials and Structures, Nantes, France, 2017.

[9] *Unraveling the Three-Dimensional Fracture Mechanisms of a Multi-Phase Material.* COMPLAS XIII. XIII International Conference on Computational Plasticity., Barcelona, Spain, 2015.

[10] *Nulceation of Fracture in a DP-steel (Approximative Title).* ESMC9. 9th European Solid Mechanics Conference, Madrid, Spain, 2015.

Conferences (oral)

[1] *Criticality and Nucleation of Slip at the Frictional Interface.* SSD 31. Swiss Soft Days, Fribourg, Switzerland, 2023.

[2] *Criticality and Nucleation of Slip at the Frictional Interface.* Interaction, disorder, elasticity, Les Houches, France, 2023.

[3] *A Theory for the Statistics of Slip at a Frictional Interface: Unifying Rate-and-State and Depinning Approaches.* SPS. Swiss Physical Society, annual meeting, Fribourg, Switzerland, 2022.

[4] *Scaling Theory for the Nucleation of Slip at the Frictional Interface.* USNCTAM2022. 19th U.S. national congress on theoretical and applied mechanics, Austin, USA, 2022.

[5] *Accelerated Ageing Multi-Fault Systems?* ECCOMAS, Oslo, Norway, 2022.

[6] *A Theory for the Statistics of Slip at a Frictional Interface: Unifying Rate-and-State and Depinning Approaches.* CMIS2022. Contact Mechanics International Symposium 2022, Lausanne, Switzerland, 2022.

[7] *A Theory for the Statistics of Slip at a Frictional Interface: Unifying Rate-and-State and Depinning Approaches.* SSD 29. Swiss Soft Days, Villigen, Switzerland, 2022.

[8] *Nucleation of Slip at the Frictional Interface: Avalanches or Fracture?* Disordered elastic systems, Spetses, Greece, 2021.

[9] *How Is Slip Nucleated at a Frictional Interface?* ICNEM 19. 24th international conference on nonlinear elasticity in materials, Kraków, Poland, 2019.

[10] *Does Inertia Induce Stick-Slip Friction?* Avalanche dynamics and precursors of catastrophic events, Les Houches, France, 2019.

[11] *FFT-based Solver (in Finite Strain) Made Simple.* COMPLAS XIV. XIV International Conference on Computational Plasticity., Barcelona, Spain, 2017.

[12] *Nulceation of Fracture in a DP-steel (Approximative Title).* ITCAM2016. 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 2016.

[13] *Nulceation of Fracture in a DP-steel (Approximative Title).* ECF21. 21st European Conference on Fracture, Catania, Italy, 2016.

[14] *Fourier-Galerkin Methods as Alternative to Finite Element Method for Numerical Homogeniaation.* ECCOMAS 2016, Crete, Greece, 2016.

[15] *FFT-based Solution: A Complex Method Made Simple (Even for 3-D Finite Strain).* ECCOMAS 2016, Crete, Greece, 2016.

[16] *Nulceation of Fracture in a DP-steel (Approximative Title).* Materials innovation institute (M2i) 16th annual conference, Sint-Michielsgestel, The Netherlands, 2015.

[17] *A Systematic Micromechanical Analysis of the Onset of Fracture in Multi-Phase Materials.* Euromech colloquium 570: impact of microstructure on plasticity, Houffalize, Belgium, 2015.

[18] *Nulceation of Fracture in a DP-steel (Approximative Title).* USNCCM13. 13th U.S. National Congress on Computational Mechanics, San Diego, United States, 2015.

[19] *Nulceation of Fracture in a DP-steel (Approximative Title).* EMMC14. 4th European Mechanics of Materials Conference, Gothenburg, Sweden, 2014.

[20] *Nulceation of Fracture in a DP-steel (Approximative Title).* WCCM2014. World Congress on Computational Mechanics, Barcelona, Spain, 2014.

[21] *Topology and Morphology Influences on the Onset of Ductile Failure in a Two- Phase Microstructure.* ECF20. 20th European Conference on Fracture, Trondheim, Norway, 2014.

[22] *Nulceation of Fracture in a DP-steel (Approximative Title).* Engineering Mechanics Symposium, Lunteren, The Netherlands, 2013.

[23] *Nulceation of Fracture in a DP-steel (Approximative Title).* COMPLAS XII. XII International Conference on Computational Plasticity, Barcelona, Spain, 2013.

[24] *On the Effect of Microstructural Morphology on Ductile Failure in Multi-Phase Materials.* ICF13. 13th International Conference on Fracture 2013, Beijing, China, 2013.

[25] *Pile-up of Edge Dislocations (Approximative Title).* SRC. Student research conference, Eindhoven, The Netherlands, 2012.

Conferences (posters)

[1] Disorder's Role in Glass Formation and Deformation. Lorentz Center, Leiden, The Netherlands, 2022.

[2] PASC22. Platform for Advanced Scientific Computing, Basel, Switzerland, 2022-6-27, 2022.

[3] MEPHISTO. MEchanics and PHysics of STretchable Objects, Cargèse, France, 2018.

[4] Physics Day. EPFL, Lausanne, Switzerland, 2018.

[5] Micro-Nano Models for Tribology. Lorentz Center, Leiden, The Netherlands, 2017.

[6] Annual M2i Symposium, Noordwijk, The Netherlands, 2016.

[7] Annual Engineering Mechanics Symposium, Lunteren, The Netherlands, 2016.

[8] Euromech colloquium 559: multi-scale computational methods, Eindhoven, The Netherlands, 2015.

[9] Annual M2i Symposium, Noordwijk, The Netherlands, 2015.

[10] Annual Engineering Mechanics Symposium, Lunteren, The Netherlands, 2015.

[11] Annual M2i Symposium, Noordwijk, The Netherlands, 2014.

[12] Annual Engineering Mechanics Symposium, Lunteren, The Netherlands, 2014.

[13] Annual M2i Symposium, Noordwijk, The Netherlands, 2013.

[14] Annual Engineering Mechanics Symposium, Lunteren, The Netherlands, 2013.

[15] Annual Engineering Mechanics Symposium, Lunteren, The Netherlands, 2012.

Colloquia (invited)

[1] PSI, Villingen, Switzerland, 2023.

[2] EMPA, Thun, Switzerland, 2023.

[3] Université Grenoble Alpes, Grenoble, France, 2022.

[4] University of Fribourg, Fribourg, Switzerland, 2022.

[5] Universität Zürich, Zürich, Switzerland, 2022.

[6] LiPhy. Université Grenoble Alpes, Grenoble, France, 2022.

[7] ETH Zürich, Zürich, Switzerland, 2022.

[8] Eindhoven University of Technology, Eindhoven, The Netherlands, 2022.

[9] University of Lausanne, Lausanne, Switzerland, 2022.

[10] University of Fribourg, Fribourg, Switzerland, 2022.

[11] ENS lyon, Lyon, France, 2021.

[12] Czech Technical University, Prague, Czech Republic, 2019.

[13] Eindhoven University of Technology, Eindhoven, The Netherlands, 2018.

[14] MINES ParisTech, Paris, France, 2017.

[15] cemef. MINES ParisTech, Sophia-Antipolis, France, 2016.

[16] TATA Steel Europe, IJmuiden, The Netherlands, 2016.

(Co-)Supervised junior researchers: PhD, master, bachelor (chronological)

[1] S. Mortgat. *Spatio-Temporal Correlations in Thermal Avalanches in Depinning.* Semester project, EPFL, 2023.

[2] T. Pottie. *Thermal Avalanches in Amorphous Solids.* Semester project, EPFL, 2023.

[3] T. Fjellman. *Measuring the Effect of Temperature in a Burridge-Knopoff Model with Inertia.* Double semester project, EPFL, 2023.

[4] L. Bugnard. *Modelling Fractal Disorder in an Amorphous Solid.* Double semester project, EPFL, 2023.

[5] E. El Sergany. *Measuring P(x) Experimentally in a Frictional Interface.* MSc thesis, EPFL, 2023.

[6] T. Fjellman. *Measuring the Effect of Temperature in a Burridge-Knopoff Model with Inertia.* Summer internship, EPFL, 2022.

[7] E. El Sergany. *A Simple Model for P(x) in a Prandtl-Tomlinson Model.* Semester project, EPFL, 2022.

[8] L. Linder. *Looking for the Origin of Rate-and-State Friction.* Semester project, EPFL, 2022.

[9] Y. Li. *Implementing Temperature in an Inertial System.* Semester project, EPFL, 2022.

[10] W. Ji. *Local Excitations in Amorphous Solids.* PhD thesis, EPFL, 2021.

[11] T. Salomon. *Finite Size Effect in the Hébraud-Lequeux Model.* Semester project, EPFL, 2021.

[12] C. Georgantas. *Implementation of a Cylindrical Element in GooseFEM.* Semester project, EPFL, 2019.

[13] F. Chappuis. *Capillary Instabilities in Liquid and Solid Cylinders.* Semester project, EPFL, 2018.

[14] T. Ma. *A Microscopic Study of Surface Adhesion in Friction Problem.* Double semester project, EPFL, 2018.

[15] C. Ylla Arbós. *Modeling of Inflatable Structures Using Structural Elements.* Semester project, EPFL, 2017.

[16] J.E.P. van Duuren. *Experimental Characterization of Microstructural Damage and Phase Distribution in Dual Phase Steel.* MSc thesis, Eindhoven Univesity of Technology, 2016.

[17] B. Dorussen. *Obtaining Graded Dual Phase Steel Microstructures: An out-of-the-Box Approach.* BSc thesis, Eindhoven Univesity of Technology, 2016.

[18] J. Keulen. *Creating Artificial Microstructures with Phase Field.* BSc thesis, Eindhoven Univesity of Technology, 2016.

[19] G. Brekelmans. *Image Segmentation: A Phase Field Approach.* BSc thesis, Eindhoven Univesity of Technology, 2016.

[20] R. Smeenk. *Phase Field Modeling of Dual-Phase Materials.* BSc thesis, Eindhoven Univesity of Technology, 2015.

[21] S. Tilmans. *Relating Microstructural Morphology to the Initiation of Fracture: A Monte Carlo Base Approach.* BSc thesis, Eindhoven Univesity of Technology, 2015.

[22] J. Hubregtse. *Identification of Phases in Noise-Polluted Microstructural Images.* BSc thesis, Eindhoven Univesity of Technology, 2014.

[23] M. Brands. *Mimicking Microstructures Using a Monte Carlo Based Approach.* BSc thesis, Eindhoven Univesity of Technology, 2014.

[24] F. Ramp. *Efficient Computation of Multiple Phase Material Statistics.* BSc thesis, Eindhoven Univesity of Technology, 2014.

[25] W. Mulder. *Phase Recognition in Dual-Phase Steel Micrographs.* BSc thesis, Eindhoven Univesity of Technology, 2014.

[26] T. Lapasset. *Characterization of Damage Mechanisms in Dual Phase Steel.* Internship, Eindhoven Univesity of Technology, 2013.

[27] Q. Dronneau. *Establishment of Phase Identification and Damage Software for Microscopic Images of Dual Phase Steel.* Internship, Eindhoven Univesity of Technology, 2013.

[28] J. Ortún. *A Computational Study of Microstructural Geometry Influence in Dual-Phase Steels.* Internship, Eindhoven Univesity of Technology, 2013.

[29] N. Maassen. *Microstructural Modelling of Ductile Failure in Dual-Phase Steel: Increasing the Computational Efficiency.* BSc thesis, Eindhoven Univesity of Technology, 2013.

[30] P. Hatzidimitris. *Mesh Dependency in Idealized Microstructural Simulations of Dual Phase Steel.* BSc thesis, Eindhoven Univesity of Technology, 2013.

Teaching activities (chronological)

1. Teaching assistant "Statistical Physics 2" (bachelor, EPFL, 02.2020 – 07.2020)
2. Teaching assistant "Continuum Mechanics" (bachelor, EPFL, 09.2016 – 02.2017)
3. Lecturer "Programming project" (bachelor, TU/e, 09.2011 – 09.2015)
4. Teaching assistant "Finite Element Method" (bachelor, TU/e, 09.2010 – 09.2011)
5. Co-developer of a tensor toolbox in Matlab for education purposes (TU/e, 09.2009 – 09.2010)
6. Supervisor "Design Based Learning" (bachelor, TU/e, 09.2008 – 09.2009)

Scientific reviewing activities

Physical Review Letters, Physical Review E, Mechanics of Materials, Strain, Computational Materials Science, International Journal of Numerical Methods in Engineering, Computer Methods in Applied Mechanics and Engineering, Numerical Algorithms, International of Journal of Fracture, Modelling and Simulation in Materials Science and Engineering, Engineering Fracture Mechanics.

Organisation of conferences (chronological)

1. Co-organiser of colloquium of Dr. Elsa Bayart at EPFL (10.2023).
2. Co-organiser of colloquium of Prof.dr. Jan Zeman at EPFL (09.2017).

Institutional responsibilities (chronological)

1. Data champion (EPFL, 09.2021 – current).
2. Cluster administrator for the Physics of Complex Systems Laboratory (EPFL, 03.2017 – current).
3. President Hora Est, PhD association for (bio-)mechanical engineering (TU/e, 09.2014 – 09.2015).
4. Founder of computing cluster support and professionalisation panel (TU/e, 09.2013 – 07.2016).
5. Buddy of autistic first year student (TU/e, 09.2008 – 09.2009).

Outreach activities (chronological)

1. Radio interview Swiss National Television (RTS) (22.04.2020).
2. Interview by freelance journalist Janny Terlouw (text available on www.geus.me) (05.2017).
3. Radio interview Rradio (05.2016).

Programming Languages

- Extensive experience: C++, C, Fortran, OpenMP, Python, Matlab, Bash, Qt, LaTeX.
- Co-maintainer libraries: xtensor, HighFive.
- Developed libraries: GooseFEM, GooseEYE, cppmat, and other miscellaneous libraries.

Extra-academic experience (selection)

- Tour du Léman (longest row race in the world on closed water) (CH, 09.2022, 09.2023).
- Swiss Champion Rowing, Master Men 4x (CH, 07.2023).
- Bronze Medal Swiss Championships Rowing, Master Men 2x (CH, 07.2021).
- Tutor of high school students in physics and math, Eindhoven area (NL, 09.2004 – 09.2008).
- Field hockey equipment commissioner (voluntary), Eindhoven area (NL, 09.2003 – 09.2007).
- Sales employee and driver for an industrial rental company, Boels rental (NL, 09.2003 – 09.2007).
- Hospitality employee in the soccer stadium of PSV, for Maison van den Boer (NL, 09.2001 – 09.2004).