

# Curriculum Vitae

## Dr. David Dulin

Date of birth : 25<sup>th</sup> of February 1982 ; Citizenship : French.

Family status : in partnership, two children.

Tenured Associate Professor, UHD2

d.dulin@vu.nl

Tel : +31 20 59 83440

Faculty of Sciences/Division of Physics and Astronomy

Vrije Universiteit Amsterdam

De Boelelaan 1081

1081 HV, Amsterdam, The Netherlands

Webpage : <https://daviddulinlab.com>

### Five most important academic achievements

---

- Established a thriving single-molecule biophysics lab to investigate protein-nucleic acids interactions in two different countries (Netherlands and Germany).
- Developed novel bespoke force and fluorescence spectroscopy microscopes, such as ultra-stable magnetic tweezers and high-throughput TIRF assays and their combination for single-molecule experiments.
- Pioneered positive RNA virus (e.g. poliovirus, SARS-CoV-2) replication investigations at the single-molecule level, establishing new methodologies to investigate antiviral drugs mechanism of actions. Member of national and international networks in virology.
- Established single-molecule assays to investigate cellular transcription (bacterial and yeast).
- Established a diverse source of funding, i.e. German Research Foundation (DFG), Dutch Research Foundation (NWO), National Institute of Health (NIH).

### Education

---

- 2006-2010 **PhD in Physics** *Paris-Sud XI University, Laboratory Charles Fabry of the Institut d'Optique, France*  
Specialization in experimental biophysics. Thesis : "*Observation of the translational activity of single ribosomes with fluorescence microscopy coupled to a microfluidic chip*". Advisors : Prof. Nathalie Westbrook and Dr. Karen Perronet.
- 2000-2006 **Bachelor and Master** Major : physics ; Minor : mathematics , *University of Bordeaux, France*  
Languages French (Native), English (Fluent, C1), Dutch (Basics, A2)

### Employment

---

- Since 2025 **Tenured Associate Professor** at *Vrije Universiteit Amsterdam, The Netherlands*.
- Since 2023 **Tenured Assistant Professor** at *Vrije Universiteit Amsterdam, The Netherlands*.
- Since 2021 **Assistant Professor** Physics Department at *Vrije Universiteit Amsterdam, The Netherlands*.
- 2016-2022 **Junior Research Group Leader non-tenure track** "Physics and Medicine" *IZKF-FAU Erlangen-Nuremberg, Germany*.
- 2014-2016 **Post-doc** in the lab of Achillefs Kapanidis, *Department of Physics, University of Oxford, UK*.  
I established a single-molecule assay to investigate bacterial transcription initiation using fluorescence microscopy.
- 2009-2014 **Post-doc** in the lab of Nynke Dekker, *Department of Bionanosciences, TU Delft, The Netherlands*.  
I pioneered high-throughput and high resolution magnetic tweezers to establish the first assay to investigate elongation dynamics and antiviral drug incorporation of a (+)RNA virus RNA polymerase.
- 2006-2009 **Research Assistant** in Nathalie Westbrook group of Prof. Alain Aspect lab.  
laureate 2022), *Laboratory CharlesFabry of the Institut d'Optique, Palaiseau, France*  
I help establishing a new single-molecule biophysics lab, i.e. new custom fluorescence microscope and biochemical assay and analysis tools to monitor mammalian translation elongation at the single-molecule level.

## Funding

---

### Third-party funding (Total : €2,350k+US\$1,734k)

- 2025 **Dutch Research Council (NWO) OCENW.M.23.350** Open Competition Domain Science - M, 4 years funding  
*Dynamics of RNA polymerase I transcription initiation.*  
Role : Lead PI.  
€417k, including 1 PhD position, consumables and equipment. To be started.
- 2022 **Dutch Research Council (NWO) OCENW.M.21.184** Open Competition Domain Science - M, 4 years funding  
*Revealing how MDA5 interrogates RNA to signal viral infection and trigger innate immunity.*  
Role : Lead PI.  
€359k, including 1 PhD position, consumables and equipment. Started in July 2023.
- 2022 **Dutch Research Council (NWO) OCENW.XL21.XL21.115** Open Competition Domain Science - XL, 5 years funding  
*Know your enemy : deciphering coronavirus biochemical cycles from RNA synthesis to assembly.*  
Consortium of 8 PIs, with a total funding of €3,032k. Role : Lead PI.  
€800k for Dr. Dulin, including 1 PhD, 1 Postdoc and 1 technician positions, consumables and equipment. Started in January 2023.
- 2022 **National Institute of Health (NIH), NIAID U19 AI171421** Antiviral Drug Discovery (AViDD), 3 years funding  
*Rapidly Emerging Antiviral Drug Development Initiative - AViDD Center.* Role : co-applicant.  
US\$567k, including two positions and consumables. 2022-2025.
- 2022 **National Institute of Health (NIH), NIAID U19 AI171292** Antiviral Drug Discovery (AViDD), 3 years funding  
*Development of Outpatient Antiviral Cocktails against SARS-CoV-2 and other Potential Pandemic RNA Viruses.* Role : co-applicant.  
US\$567k, including two positions and consumables. 2022-2025.
- 2021 **National Institute of Health (NIH), NIAID R01 AI161841-01** R01, 5 years funding  
*Coronavirus replication.* Role : co-applicant.  
US\$600k, including 5 years postdoc salary and consumables. Started in March 2021.
- 2020 **German Research Foundation (DFG) DU1872/3-1** Individual Research Grant, 2.5 years funding  
*Revealing the mechanism of directional transcription termination at the single molecule level for the human mitochondrial transcription complex.* Role : lead PI.  
€276.6k, including 2.5 years postdoc salary and consumables. 2020-2024.
- 2020 **German Research Foundation (DFG) DU1872/5-1** Individual Research Grant, 2.5 years funding  
*Determinants and dynamics of RNA polymerase I transcription initiation.* Role : lead PI.  
€276.3k, including 2.5 years postdoc salary and consumables. 2021-2024.
- 2020 **German Research Foundation (DFG) DU1872/4-1** Individual Research Grant, 2 years funding  
*Revealing the mechanism of nucleotide selection, addition and proofreading of the SARS-coronavirus-1 replication transcription complex at the single molecule level.* Role : lead PI.  
€221.6k, including 2 years postdoc salary and consumables. 2021-2024.

### Start-up package

- 2021 **VU Amsterdam - Assistant Professor position**, 5 years position financed by the [BaSyC](#) consortium grant, including salary and €400k funding (personnel and material).
- 2016 **FAU Hospital Erlangen-Nuremberg IZKF Junior Group Leader non-tenure track position** 6 years funded position, including €200k equipment, €300k consumables and €1,076 k personnel.

## Professional Service

---

### Academic Service

- Since 2024 Member of the Physics of Life committee, NWO, Netherlands.
- 2023 Chair of the Program committee for the NWO Biophysics 2024 conference.
- 2022 Member of the Program committee for the NWO Biophysics 2023 conference.

## Service at University

Since 2021 Member of the DEI committee at the VU Physics and Astronomy Department.  
Since 2021 Member of the Examination board of the B.Sc. and M.Sc. "Physics and Astronomy" program of VU Amsterdam and UvA.  
2020-2021 Member of the FAU-IZKF Junior committee.

**Grant Reviewer** Agence Nationale pour la Recherche (ANR), European Research Council (ERC), German Research foundation (DFG).

**Peer Reviewer** for Nature Structural and Molecular Biology, Nature Communications, Angewandte Chemie International Edition, Nucleic Acids Research, Molecular Cell, Methods, FEBS letter, Journal of Biological Chemistry.

## Award

---

Erasmus exchange fellowship, 2003-2004, *University of Bristol, UK*

## Teaching related activities

---

### Qualification

2024 Leadership and management training program, VU Amsterdam.  
2023 Supervising PhD candidates training program, VU Amsterdam.  
2023 Basiskwalificatie Onderwijs (BKO, Dutch University Teaching Qualification).

### Teaching At VU Amsterdam

Since 2022 Mechanics and Thermodynamics in the Cell. B.Sc (3rd year), *VU and UvA*. Lecturer and coordinator.  
Since 2021 Advanced Biophysics, M.Sc., *VU and UvA*. Lecturer and coordinator.

### Previously

2018-2020 Magnetic tweezers, *B.Sc. Integrated Life Science, FAU Erlangen-Nuremberg*, lectures and practicum.  
2010 Micro and Nanofabrication for biophysics, *Nanosciences M.Sc., TU Delft*, lecture.  
2008-2009 Ray optics, microscopy, wave optics for third year B.Sc. at *Institut d'Optique Graduate School, France*.  
Teaching assistant, practicum.

## Publications

---

Total citations : 2038 ; H-index : 24. Source : Google Scholar

### Publications, *preprint*

B. Khitiri, B. Wang, M.B. Cooke, L. Buccolieri, D. Dulin, C. Herman, I. Artsimovitch  
*The  $\alpha$  subunit stabilizes transcribing RNA polymerase to balance processivity and collision resolution*  
**BioRxiv** <https://doi.org/10.64898/2026.05.17.725479>, (2026). *Under review in Science Advances*

P.P.B. America, E. Ostrofet, B. Johnson, S. Quack, F. S. Papini, Q. Smitskamp, D. Buc, J.J. Arnold, C.E. Cameron, D. Dulin  
*Accurate single-bead force calibration in high-throughput magnetic tweezers reveals the mechanism of directional transcription termination by MTERF1.*  
**BioRxiv** <https://doi.org/10.64898/2026.04.17.719150>, (2026). *Under review in Nucleic Acids Research*

M. Haas, J. T. Mills, C. Kelley, A. Das, H. Hof, C. Niemel, T. Donselaar, I. Drulyte, F.J.M. van Kuppeveld, D. Dulin, J. Snijder, M.R. Herod, and D.L. Hurdiss  
*Integrative Structure of Norovirus NS3 Suggests a Role in RNA Transport*  
**BioRxiv** <https://doi.org/10.1101/2025.06.17.659504>, (2025). *Under review in Nature Communications*

D. Dulin, Z. Yu, T.J. Cui, B.A. Berghuis, M. Depken and N.H. Dekker  
*Real-time observation of replicative helicase assembly onto single-stranded DNA*  
**BioRxiv** <https://doi.org/10.1101/077800>, (2016).

## Publications, *book chapters*

40. D. Dulin  
*An introduction to magnetic tweezers*  
In : Heller I., Dulin D., Peterman E. (editors) *Single Molecule Analysis : Methods and Protocols*, Third Edition. Springer Nature, New York, NY, (2023).  
[https://doi.org/10.1007/978-1-0716-3377-9\\_18](https://doi.org/10.1007/978-1-0716-3377-9_18)
39. S. Quack and D. Dulin  
*Surface functionalization, nucleic acid tether characterization, and force calibration for a magnetic tweezers assay*  
In : Heller I., Dulin D., Peterman E. (editors) *Single Molecule Analysis : Methods and Protocols*, Third Edition. Springer Nature, New York, NY, (2023).  
[https://doi.org/10.1007/978-1-0716-3377-9\\_19](https://doi.org/10.1007/978-1-0716-3377-9_19)
38. E. Ostrofet, F.S. Papini, A.M. Malinen and D. Dulin  
*A single-molecule view on cellular and viral RNA synthesis*  
In : Joo C., Rueda D. (eds) *Biophysics of RNA-Protein Interactions*. Biological and Medical Physics, Biomedical Engineering. Springer, New York, NY, (2019).  
<https://doi.org/10.1007/978-1-4939-9726-8>, (2019).

## Publications, *in peer-reviewed journals*

- 37 A. Rakib, A. Das, S. C. Bera, P. P. B. America, M. Klein, T. K. Anderson, J. C. Marecki, B. Wang, E. Bogers, J. Y. Feng, J. P. Bilello, F. S. Papini, Q. Smitskamp, J. J. Arnold, I. Artsimovitch, R. N. Kirchdoerfer, C. E. Cameron, K. D. Raney, D. Dulin  
*Template switching by coronavirus polymerase requires helicase activity and is stimulated by remdesivir and molnupiravir*  
**BioRxiv** <https://doi.org/10.1101/2025.10.03.680419>, (2025).  
**Science Advances**, in press.
36. S. Quack, S. Maity, P. P. B. America, M. Klein, A. Herrero del Valle, R. Singh, Q. Smitskamp, F. S. Papini, C. P. Broedersz, W. H. Roos, Y. Modis, D. Dulin  
*MDA5 generates compact ribonucleoprotein complexes via ATP-dependent single-stranded RNA loop extrusion*  
**Nucleic Acids Research**, 54, 6, 2026, gkag274, <https://doi.org/10.1093/nar/gkag274>
35. P. P. B. America, S. C. Bera, A. Das, T. K. Anderson, J. C. Marecki, F. S. Papini, J. J. Arnold, R. N. Kirchdoerfer, C. E. Cameron, K. D. Raney, M. Depken, D. Dulin  
*The coronavirus helicase synergizes with the viral RNA polymerase to enable rapid RNA synthesis through duplex RNA*  
**Cell Reports**, 45, 2026. <https://doi.org/10.1016/j.celrep.2026.117273>.
34. Z. M. Rashid, S. Quack, M. Klein, Q. Smitskamp, P. P. B. America, M. A. Albers, J. Paulus, T. N. Grossmann, D. Dulin  
*Single-molecule magnetic tweezers reveals that TAV2b-derived peptides underwind and stabilize double-stranded RNA*  
**Journal of American Chemical Society**, 148, 8, 2026 <https://doi.org/10.1021/jacs.5c18586>.
33. Z. Xiao, A. Das, A. Jain, T. K. Anderson, C. E. Cameron, J. J. Arnold\*, D. Dulin\*, R. N. Kirchdoerfer\*  
*The 2'-endo conformation of arabinose-CTP and arabinose-UTP inhibit viral polymerases by inducing long pauses*  
**Journal of Biological Chemistry** <https://doi.org/10.1016/j.jbc.2025.111027>, (2025). \* : corresponding authors
32. C. Lu, M. T. Khoshmehr, M. S. Feiz, M. M. Dashtabi, D. Dulin, I. Avcı  
*Entropy-based Super-Resolution Imaging in Waveguide-based TIRF Microscopy - An Experimental and Numerical Study*  
**Optics Express**, 33, 29295-29307 (2025).
31. M. Klein, A. Das, S. C. Bera, T. K. Anderson, D. Kocincova, H. W. Lee, B. Wang, F. S. Papini, J. C. Marecki, J. J. Arnold, C. E. Cameron, K. D. Raney, I. Artsimovitch, M. Gotte, R. N. Kirchdoerfer, M. Depken, D. Dulin  
*A post-assembly conformational change makes the SARS-CoV-2 polymerase elongation-competent*  
**Nucleic Acids Research**, Vol. 53, 10, gkaf450 (2025). <https://doi.org/10.1093/nar/gkaf450>
30. H. Dohnalova, M. Seifert, E. Matouskova, M. Klein, F. S. Papini, J. Lipfert, D. Dulin\*, F. Lankas\*  
*Temperature-dependent twist of double-stranded RNA probed by magnetic tweezers experiments and molecular dynamics simulations*  
\* : corresponding authors  
**J. Phys. Chem. B** <https://doi.org/10.1021/acs.jpcc.3c06280> (2024).
29. R. Chinthapatla, M. Sotoudegan, T. Anderson, I.M. Moustafa, K.T. Passow, S.A. Kennelly, R. Moorthy, D. Dulin, J.Y. Feng, D.A. Harki, R. Kirchdoerfer, C.E. Cameron, J.J. Arnold  
*Interfering with nucleotide excision by the coronavirus 3'-to-5' exoribonuclease*  
**Nucleic Acids Research**, gkac1177 (2022).

28. S.C. Bera, P.P.B. America, S. Maatsola, M. Seifert, E. Ostrofet, J. Cnossen, M. Spermann, F.S. Papini, M. Depken, A.M. Malinen and D. Dulin  
*Quantitative parameters of bacterial RNA polymerase open-complex formation, stabilization and disruption on a consensus promoter*  
**Nucleic Acids Research**, gkac560 (2022).
27. A.M. Malinen, J. Bakermans, E. Aalto-Setälä, M. Blessing, D.L.V. Bauer, O. Parilova, G.A. Belogurov, D. Dulin, and A.N. Kapanidis  
*Real-Time Single-Molecule Studies of RNA Polymerase-Promoter Open Complex Formation Reveal Substantial Heterogeneity Along the Promoter-Opening Pathway*  
**Journal of Molecular Biology**, 434, 2, p.167383 (2021).
26. M. Seifert, S.C. Bera, P. van Nies, R.N. Kirchdoerfer, A. Shannon, T.T.N. Le, X. Meng, H. Xia, J. M. Wood, L. D. Harris, F.S. Papini, J.J. Arnold, S.C. Almo, T.L. Grove, P.-Y. Shi, Y. Xiang, B. Canard, M. Depken, C.E. Cameron, and D. Dulin  
*Inhibition of SARS-CoV-2 polymerase by nucleotide analogs : a single molecule perspective*  
**eLife**, 10 :e70968 (2021)
25. S.C. Bera, M. Seifert, R.N. Kirchdoerfer, P. van Nies, Y. Wubulikasimu, S. Quack, F.S. Papini, J.J. Arnold, B. Canard, C.E. Cameron, M. Depken and D. Dulin  
*The nucleotide addition cycle of the SARS-CoV-2 polymerase*  
**Cell Reports**, 36 (10), 109650 (2021)
24. E. Ostrofet, F. S. Papini, D. Dulin  
*Microscopy-spectroscopy SI : High spatiotemporal resolution data from a custom magnetic tweezers instrument*  
**Data in Brief**, 105397, (2020).
23. M. Seifert, P. van Nies, F.S. Papini, J.J. Arnold, M.M. Poranen, C.E. Cameron, M. Depken and D. Dulin  
*Temperature controlled high-throughput magnetic tweezers show striking difference in activation energies of replicating viral RNA-dependent RNA polymerases.*  
**Nucleic Acids Research**, 48 (10), 5591-5602 (2020)
22. F. S. Papini, M. Seifert and D. Dulin  
*High-yield fabrication of nucleic acid constructs for single-molecule force and torque spectroscopy experiments.*  
**Nucleic Acids Research**, gkz851, (2019).
21. E. Ostrofet, F. S. Papini, D. Dulin  
*Correction-free force calibration for magnetic tweezers*  
**Scientific Reports**, 8,15920, (2018).
20. D. Dulin\*, D.L.V. Bauer, A.M. Malinen, J.J.W. Bakermans, M. Kaller, Z. Morichaud, I. Petushkov, M. Depken, K. Brodolin, A. Kulbachinskiy and A.N. Kapanidis\*  
*Pausing controls branching between productive and non-productive pathways during initial transcription in bacteria*  
**Nature Communications**, 9 (1), 1478 (2018). (\* : corresponding authors).
19. D. Dulin, J.J. Arnold, T. van Laar, H.-S. Oh, C. Lee, D.A. Harki, M. Depken, C.E. Cameron, and N.H. Dekker  
*Signatures of Nucleotide Analogue Incorporation by an RNA-Dependent RNA Polymerase Revealed Using High-Throughput Magnetic Tweezers*  
**Cell Reports**, 21 (4), 1063, (2017).
18. O. Bugaud, N. Barbier, H. Chommy, N. Fisman, A. Le Gall, D. Dulin, M. Saguy, N. Westbrook, K. Perronet and O. Namy  
*Kinetics of CrPV and HCV IRES-mediated eukaryotic translation using single-molecule fluorescence microscopy*  
**RNA**, 23, 1626, (2017).
17. F. Kriegel, N. Ermann, R. Forbes, D. Dulin, N. H. Dekker and J. Lipfert  
*Probing the salt dependence of the torsional stiffness of DNA by multiplexed magnetic torque tweezers*  
**Nucl. Acids Res.**, 45 (10), 5920, (2017).
16. N. N. Vtyurina, D. Dulin, M. Docter, A. Meyer, N.H. Dekker and E. A. Abbondanzieri  
*Hysteresis in DNA compaction by Dps is described by an Ising model*  
**Proc. Natl. Acad. Sci. U.S.A.**, 113, 4982, (2016).
15. D. Dulin\*, T.J. Cui, J. P. Cnossen, M. W. Docter, J. Lipfert and N.H. Dekker\*  
*High Spatiotemporal Resolution Magnetic Tweezers : Calibration and Applications to DNA Dynamics*  
**Biophys. J.**, 109, 2113, (2015). (\* : corresponding author)
14. D. Dulin, I. D. Vilfan, B. A. Berghuis, M. Poranen, M. Depken and N.H. Dekker  
*Backtracking behavior in viral RNA-dependent RNA polymerase provides the basis for a second initiation site*  
**Nucl. Acids Res.**, 43 (21), 10421, (2015).

13. D. Dulin, B. A. Berghuis, M. Depken and N.H. Dekker  
*Untangling reaction pathways through modern approaches to high-throughput single-molecule force-spectroscopy experiments*  
**Curr. Op. Struct. Biol.**, 34, 116, (2015).
12. B.A. Berghuis, D. Dulin, Z.-Q. Xu, T. van Laar, B. Cross, R. Janissen, S. Jergic, N. Dixon, M. Depken and N.H. Dekker  
*Strand separation suffices to establish a long-lived, foolproof DNA-protein lock at the Tus-Ter replication fork barrier*  
**Nature Chem. Biol.**, 11, 579, (2015).
11. M.M. van Oene, L.E. Dickinson, F. Pedaci, M. Kober, D. Dulin, J. Lipfert, and N.H. Dekker  
*Biological magnetometry : Torque on superparamagnetic beads in magnetic fields*  
**Phys. Rev. Lett.**, 114, 218301, (2015).
10. D. Dulin, I.D. Vilfan, B.A. Berghuis, S. Hage, D. Bamford, M. Poranen, M. Depken, and N.H. Dekker  
*Elongation-competent pauses govern the fidelity of a viral RNA-dependent RNA polymerase*  
**Cell Reports**, 10, 983, (2015).
9. Z. Yu, D. Dulin, J. P. Cnossen, M. Koeber, M. van Oene, O. Ordu, B. A. Berghuis, T. Hensgens, J. Lipfert and N.H. Dekker  
*A force calibration standard for magnetic tweezers*  
**Rev. Sci. Inst.**, 85, 123114, (2014).
8. J. P. Cnossen, D. Dulin and N.H. Dekker  
*An optimized software framework for real-time, high-throughput tracking of spherical beads*  
**Rev. Sci. Inst.**, 85, 103712, (2014).
7. J. Lipfert, G. M. Skinner, J. M. Keegstra, T. Hensgens, T. Jager, D. Dulin, M. Koeber, Z. Yu, S. P. Donkers, F.-C. Chou, R. Das, and N. H. Dekker  
*Double-Stranded RNA under Force and Torque : Similarities to and Striking Differences from Double- Stranded DNA*  
**Proc. Natl. Acad. Sci. U.S.A.**, 111, 15408, (2014).
6. D. Dulin, S. Barland, X. Hachair and F. Pedaci  
*Efficient illumination for microsecond tracking microscopy*  
**PLoS One**, 9, e107335, (2014).
5. R. Janissen, B.A. Berghuis, D. Dulin, M. Wink, T. van Laar and N.H. Dekker  
*Invincible DNA tethers : covalent DNA anchoring for enhanced temporal and force stability in magnetic tweezers experiments*  
**Nucl. Acids Res.**, 42, e137, (2014).
4. D. Dulin, J. Lipfert, C. M. Moolman, and N. H. Dekker  
*Studying genomic processes at the single-molecule level : introducing the tools and applications*  
**Nature Rev. Gen.**, 14, 9, (2013).
3. A. Le Gall\*, D. Dulin\*, G. Clavier, R. Meallet-Renault, P. Bouyer, K. Perronet, and N. Westbrook  
*Improved Photon Yield from a Green Dye with a Reducing and Oxidizing System*  
**Chem. Phys. Chem.**, 12 (9), 1657, (2011) (\* : equal contribution).
2. A. Le Gall, K. Perronet, D. Dulin, A. Villing, P. Bouyer, K. Visscher and N. Westbrook  
*Simultaneous calibration of optical tweezers spring constant and position detector response*  
**Opt. Exp.**, 18 (25), 26469, (2010).

#### Peer-reviewed proceedings

1. D. Dulin, A. Le Gall, K. Perronet, N. Soler, D. Fourmy, S. Yoshizawa, P. Bouyer and N. Westbrook  
*Reduced photobleaching of BODIPY-FL*  
**Proceedings of HBSM 2009, Physics Procedia**, 3 (4), 1563, (2010).

## Talks at conferences

---

\* indicates since Principal Investigator

- 27\*. LMU CeNS Workshop, *Venice, Italy* (2025)
- 26\*. American Virology Society meeting, *Montreal, Canada* (2025)
- 25\*. Keystone, RNA mediated innate immunity, *Keystone, CO, USA* (2025)
- 24\*. American Virology Society meeting, *Columbus, OH, USA* (2024)
- 23\*. Single-Molecule Biophysics Les Houches *Les Houches, France* (2024)
- 22\*. GRC Enzymes, Co-Enzymes and Metabolism (Invited Speaker), *Waterville Valley, USA* (2022)
- 21\*. International Conference on Antiviral Research (ICAR) (Invited Speaker), *Seattle, USA* (2022)
- 20\*. Single-Molecule Biophysics Les Houches *Les Houches, France* (2022)
- 19\*. Dutch Annual Virology Symposium (Invited Speaker), *Amsterdam, The Netherlands* (2021)
- 18\*. CSHL COVID/SARS-CoV-2 Rapid Research Report (Invited Speaker), *Cold Spring Harbour, USA* (2020)
- 17\*. Journées Francophone de la Virologie (Invited Speaker), *Lyon, France* (2019)
- 16\*. Structure and Dynamics of Biomolecules (Invited Speaker), *Huenfeld, Germany* (2019)
- 15\*. Single Molecule Biophysics, *Aspen, USA* (2019)
- 14\*. GFV2018 Annual Meeting of the Society for Virology, *Wuerzburg, Germany* (2018)
- 13\*. SFB960 Symposium The Biology of RNA-Protein Complexes, *Regensburg, Germany* (2017)
- 12\*. FASEB Mechanism and Regulation of Prokaryotic Transcription, *Saxons Rivers, USA* (2017)
11. Gordon Research Conference Viruses and Cells, *Girona, Spain* (2015)
10. Society for General Microbiology Annual Conference, *Birmingham, UK* (2015)
9. Biophysical Society Meeting, *San Francisco, USA* (2014)
8. Chemistry in Relation to Biology and Medical Research, *Veldhoven, The Netherlands* (2013)
7. Biophysical Society Meeting, *Philadelphia, USA* (2013)
6. Annual Dutch meeting on Molecular and Cellular Biophysics, *Veldhoven, The Netherlands* (2012)
5. Congress of the French Physical Society, *Bordeaux, France* (2011)
4. Harden Conference RNAP, *Cambridge, England* (2010)
3. Zurich/Paris young scientist meeting, *Paris, France* (2010)
2. Photonics For Life meeting, *Brussels, Belgium* (2008)
1. Congress of the French Physical Society, *Grenoble, France* (2007)

## Invited Seminars

---

\* indicates since Principal Investigator

- 42\*. University of Oxford, *Oxford (UK)* (2026)
- 41\*. University of Utrecht, *Utrecht (NL)* (2026)
- 40\*. Centre de Biochimie Structurale, *Montpellier (France)* (2025)
- 39\*. Bionanoscience Department at TU Delft, *Delft (NL)* (2023)
- 38\*. LMS-MRC Imperial College, *London (UK)* (2023)
- 37\*. Department of Microbiology and Immunology, *Chapel Hill (USA)* (2022)
- 36\*. MPI Physics of Light, *Erlangen (Germany)* (2022)
- 35\*. Laboratoire d'Ondes et Matière d'Aquitaine, *Bordeaux (France)* (2022)
- 34\*. Chair of Biophysics, Utrecht University Physics Department, *Utrecht (The Netherlands)* (2021)
- 33\*. Gene Center, Department of Biochemistry, Ludwig Maximilians University, *Munich (Germany)* (2021)
- 32\*. IZNF, FAU Erlangen *Erlangen (Germany)* (2021)
- 31\*. Laboratoire Architecture et Fonction des Macromolécules Biologiques (AFMB), *Marseille (France)* (2019)
- 30\*. Institute for the Biology and Chemistry of Proteins, *Lyon (France)* (2019)
- 29\*. Structural Biology and Biophysics Seminar, Basel Biozentrum, *Basel (Switzerland)* (2019)
- 28\*. Muenchner Physik Kolloquium, Ludwig Maximilians University, *Munich (Germany)* (2019)
- 27\*. Physikalisches Kolloquium, FAU Erlangen-Nuremberg, *Erlangen (Germany)* (2018)
- 26\*. Bayern Biophotonics, Max Planck Institute Physics of Light, *Erlangen (Germany)* (2017)
- 25\*. GRK1962, FAU Erlangen-Nuremberg, *Erlangen (Germany)* (2017)
- 24\*. Department of Virology, FAU Erlangen-Nuremberg, *Erlangen (Germany)* (2017)
- 23\*. Laboratoire Architecture et Fonction des Macromolécules Biologiques (AFMB), *Marseille (France)* (2017)
- 22\*. Department of Immune Modulation, FAU Erlangen-Nuremberg, *Erlangen (Germany)* (2016)
21. Interdisciplinary Center for Clinical Research (IZKF), FAU Erlangen-Nuremberg, *Erlangen (Germany)* (2015)

20. King's College, *London (UK)* (2015)
19. Centre d'Etudes d'agents Pathogenes et Biotechnologies pour la Sante, *Montpellier (France)* (2015)
18. DIIID Seminar Series, King's College, *London (UK)* (2015)
17. Centre de Biochimie Structurale, *Montpellier (France)* (2015)
16. University of Warwick, *Coventry (UK)* (2015)
15. University of Oxford, *Oxford (UK)* (2014)
14. University of Wollongong, *Wollongong (Australia)* (2013)
13. Centre de Biochimie Structurale, *Montpellier (France)* (2013)
12. Laboratoire Architecture et Fonction des Macromolecules Biologiques (AFMB), *Marseille (France)* (2013)
11. Physics-Biology interface seminar, Laboratoire de Physique Statistique, *Orsay (France)* (2013)
10. Laboratoire de Virologie Moleculaire et Structurale, *Gif/Yvette (France)* (2012)
9. KNAW Biophysics Meeting, *Amsterdam (The Netherlands)* (2012)
8. Institut Jacques Monod, *University Paris 7, Paris (France)* (2012)
7. Centre de Genetique Moleculaire, *Gif/Yvette (France)* (2012)
6. Laboratoire Charles Fabry of the Institut d'Optique, *Palaiseau (France)* (2010)
5. Centre de Genetique Moleculaire, *Gif/Yvette (France)* (2010)
4. TU Delft, *Delft (The Netherlands)* (2009)
3. Amherst University, *Amherst Massachussets (USA)* (2009)
2. Columbia University, *New-York City (USA)* (2009)
1. Cornell University, *New-York City (USA)* (2009)

## Mentorship

---

### Service on PhD examination committees

Jetty van Ginkel, TU Delft (The Netherlands)  
 Olena Parilova, University of Turku (Finland)  
 Emil Aalto-Setälä, University of Turku (Finland)  
 Paul Poudevigne-Durance, Imperial College (UK)  
 Longfu Xu, VU Amsterdam (The Netherlands)  
 Dian Spakman, VU Amsterdam (The Netherlands)  
 Vadim Bogatyr, VU Amsterdam (The Netherlands)

### Supervision as a PI

*Vrije Universiteit Amsterdam (The Netherlands)*

**PhD candidates** Pim America, Asif Rakib, Arnab Das, Luca Buccolieri, Zainab Rashid, Jonathan Hilgendorf, Evangelos Gioukakis

**Postdoctoral fellows** Misha Klein, Salina Quack, Sadegh Feiz, Jelmer Cnossen, Ezgi Taskopru, Thomas Bugea

**Research technicians** Paula Rivas, Quinte Smitskamp

**Research assistants** Eline Bogers, Nico van der Vis

*Interdisciplinary Center for Clinical Research (IZKF), FAU Hospital Erlangen-Nuremberg (Germany)*

**Graduated PhD students** Dr. Mona Seifert (Summa Cum Laude), Dr. Eugeniu Ostrofet

**Research Assistants** Dr. Flavia Stal-Papini, Monika Spermann, Yibulayin Wubulikasimu

**Postdoctoral Fellows** Subhas Chandra Bera, Salina Quack, Sadegh Feiz