

# Curriculum Vitae

## Dr. David Dulin

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

Family status : in partnership, two children.

Tenured Assistant Professor, UD1

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### Office

Faculty of Sciences/Division of Physics and Astronomy

Vrije Universiteit Amsterdam

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1081 HV, Amsterdam, The Netherlands

Webpage : <https://daviddulinlab.com>

## Five most important academic achievements

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- Established independently the first single-molecule biophysics lab at FAU Erlangen-Nuremberg to investigate protein-nucleic acids interactions, including fully operational molecular biology and microscopy labs.
- Pioneered high-throughput and high-resolution magnetic tweezers set-ups for single-molecule biophysics investigations.
- Pioneered the study of SARS-CoV-2 replication-transcription complex at the single-molecule level, leading to the discovery of a mechanism of action of Remdesivir (first FDA approved antiviral drug against COVID19).
- Established new protocols to fabricate custom-designed high quality nucleic acids construct for single-molecule biophysics assays.
- Developed novel bespoke force and fluorescence spectroscopy microscopes, such as ultra-stable magnetic tweezers and high-throughput TIRF set-ups for single-molecule experiments.

## Education

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- 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*". Advisor : Prof. Nathalie Westbrook
- 2000-2006 **Bachelor and Master** Major : physics ; Minor : mathematics , *University of Bordeaux, France*
- Languages French (Native), English (Fluent, C1), German (Basics, B1.1), Dutch (Basics, A2)

## Employment

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- 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 FRET assay to investigate bacterial transcription initiation using TIRF 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 the lab of Nathalie Westbrook, *Laboratory Charles Fabry of the Institut d'Optique, Prof. Alain Aspect lab*.  
I was the first PhD student in the group establishing a single-molecule biophysics lab, i.e. new custom instrument to build (optical tweezers and TIRF microscope), new biochemical assay and analysis tools.

## Funding

### Third-party funding (Total : €1,933.5k+US\$2,490k)

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- 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. Will start in March 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), 5 years funding  
*Rapidly Emerging Antiviral Drug Development Initiative - AViDD Center.* Role : co-applicant.  
US\$945k, including two positions and consumables. Started in May 2022.
- 2022 **National Institute of Health (NIH), NIAID U19 AI171292** Antiviral Drug Discovery (AViDD), 5 years funding  
*Development of Outpatient Antiviral Cocktails against SARS-CoV-2 and other Potential Pandemic RNA Viruses.* Role : co-applicant.  
US\$945k, including two positions and consumables. Started in May 2022.
- 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 **Deutsche Forschungsgemeinschaft (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. Started in March 2020.
- 2020 **Deutsche Forschungsgemeinschaft (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. Started in April 2021.
- 2020 **Deutsche Forschungsgemeinschaft (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. Started in August 2021.

### 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

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### Academic Service

2022 Member of the Program committee for the NWO Biophysics 2023 conference.

### Service at University

Since 2021 Member of the Diversity, Equity, and Inclusion 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

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

ATIP-Avenir CNRS-INSERM, 2020, Competitive funding program from CNRS-INSERM to establish an independent lab in France. Short-listed for the interview; *declined*.

## Teaching related activities

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### Qualifications

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.

Since 2021 Advanced Biophysics, M.Sc., *VU and UvA*. Lecturer.

### 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

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Total citations : 1345 ; H-index : 20. Source : Google Scholar

### Publications, *preprint*

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).

H. Dohnalova, M. Seifert, E. Matouskova, F. S. Papini, J. Lipfert, D. Dulin\*, F. Lankas\*

*Real-time observation of replicative helicase assembly onto single-stranded DNA*

\* : corresponding authors

BioRxiv <https://doi.org/10.1101/2023.05.31.543084>, (2023).

### Publications, *book chapters*

32. D. Dulin

*An introduction to magnetic tweezers*

In : Heller I., Dulin D., Peterman E. (eds) *Single Molecule Analysis : Methods and Protocols*, Third Edition.

Springer Nature, New York, NY, (2023).

In press

31. 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. (eds) *Single Molecule Analysis : Methods and Protocols*, Third Edition.

Springer Nature, New York, NY, (2023).

In press

30. 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*

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<sup>\*</sup>, 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<sup>\*</sup>  
*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

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\* indicates since Principal Investigator

- 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)

## Posters at conferences

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10. Single Molecule Biophysics, *Aspen, USA* (2023)
9. Biophysical Society Meeting, *San Diego (USA)* (2020)
8. Single Molecule Biophysics Alpine, *Les Houches (France)* (2020)
7. GRC single molecule, *Mount Snow Resort West Dover, VT (USA)* (2018)
6. GRC single molecule, *Lucca (Barga), Italy* (2014)
5. Harden conference : Machines on genes II, *Oxford (England)* (2012)
4. GRC single molecule, *Mount Snow Resort West Dover, VT (USA)* (2012)
3. Biophysical Society Meeting, *San Diego (USA)* (2012)
2. Annual Dutch meeting on Molecular and Cellular Biophysics, *Veldhoven, The Netherlands* (2010)
1. Biophysical Society Meeting, *Boston (USA)* (2009)

## Invited Seminars

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\* indicates since Principal Investigator

- 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 Macromolécules Biologiques (AFMB), *Marseille (France)* (2013)
11. Physics-Biology interface seminar, Laboratoire de Physique Statistique, *Orsay (France)* (2013)
10. Laboratoire de Virologie Moléculaire 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 Moléculaire, Gif/Yvette (France) (2012)
6. Laboratoire Charles Fabry of the Institut d'Optique, *Palaiseau (France)* (2010)
5. Centre de Genetique Moléculaire, Gif/Yvette (France) (2010)
4. TU Delft, *Delft (The Netherlands)* (2009)
3. Amherst University, *Amherst Massachusetts (USA)* (2009)
2. Columbia University, *New-York City (USA)* (2009)
1. Cornell University, *New-York City (USA)* (2009)

## Mentorship

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### Service on PhD examination committees at external institutions

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)

### Supervision since PI

*Vrije Universiteit Amsterdam (The Netherlands)*

**PhD candidates** Pim America, Nico van der Vis, Asif Rakib, Arnab Das, Luca Buccolieri.

**Postdoctoral fellows** Misha Klein, Salina Quack, Sadegh Feiz, Jelmer Cnossen.

**Master Student** Daniel Buc

**Research technician** Quinte Smitskamp

**Student assistant** Eline Bogers

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

**PhD candidates** Dr. Mona Seifert (graduated Summa Cum Laude in April 2022), Eugeniu Ostrofet (thesis in preparation)

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

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

### Supervision during Postdocs

*Department of Physics, University of Oxford (UK)*

**PhD candidate** Rebecca Andrews

**Master Students** Martin Kaller, Jacob Bakermans

*Department of Bionanosciences, TU Delft (The Netherlands)*

**Postdoctoral fellow** Dr. Zhongbo Yu

**PhD candidates** Natalia Vtyurina, Bojk A. Berghuis, Aartjan te Velhuis

**Master Students** Tao Ju Cui, Ruadrith Forbes, Jelmer Cnossen, Ivana Cvijovic, Cristina Sfiligoj, Tom Sassen, Matthew Pierotti, Sumit Sachdeva

**Bachelor Student** Kevin Esajas