CV Michael Gatchell (born 1988-01-05)

ONLINE PROFILES

ORCID: https://orcid.org/0000-0003-1028-7976
ResearchID/Publons: https://publons.com/researcher/O-2335-2015/
Google Scholar: https://scholar.google.com/citations?user=7BgpbQIAAAAJ

EDUCATION

2011 BSc in Astronomy, Stockholm Observatory, Stockholm University, Sweden. Thesis title: "**In Preparation of: Disk Evolution Over Some Fraction of Hubble Time**"

2011 MSc in Astronomy, Stockholm Observatory, Stockholm University, Sweden. Thesis title: "**Galactic Disk Evolution Since** $z \sim 5$"

2014 Licentiate Degree (equivalent to half of a PhD) in Physics, Department of Physics, Stockholm University, Sweden. Thesis title: "**Collision Induced Fragmentation of Molecules and Molecular Clusters**"

2016 PhD in Physics, Department of Physics, Stockholm University, Sweden. Thesis title: "**Molecular Hole Punching – Impulse Driven Reactions in Molecules and Molecular Clusters**"

PROFESSIONAL CAREER

2016 Post-Doc at the Department of Physics, Stockholm University, Sweden (5 months)

2017–20 Post-Doc at the Institute for Ion Physics at Universität Innsbruck (3 years)

2017 Parental leave between March 1st and September 1st (6 months)

2019 Medical leave, January–March (8 weeks)

2020– Researcher at the Department of Physics, Stockholm University, Sweden

RESEARCH GRANTS

2017-2020 PI: International Post-Doc financed by the Swedish Research Council (VR), 3,150,000 SEK.

2019-2024 Co-Applicant: Grant from Knut and Alice Wallenbergs Foundation, PI: Henrik Cederquist, 37,200,000 SEK.

2019-2021 International Co-PI: Grant from Scheme for Promotion of Academic and Research Collaboration (India), PI: Arun Sarma, VIT University Chennai.

2021-2024 PI: Starting Grant financed by the Swedish Research Council (VR), 3,280,000 SEK.

AWARDS AND STIPENDS

2012 **Travel grant from the Birger and Gurli Grundström scholarpship fund:** 10,500 SEK to participate in the XXVIII International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC) in Lanzhou, China

2014 **Travel grant from K & A Wallenberg's fund:** 10,000 SEK to participate in the XXIX International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC) in Toledo, Spain

2015 **C.F. Liljevalch J:ors travel grant:** 11,000 SEK to participate in the 6th International Workshop on Electrostatic Storage Devices (ESD) in Tokyo, Japan

2015 **Selected Young Scientist at the 65th Lindau Nobel Laureate Meeting:** I was nominated by Stockholm University for participating in the 2015 Lindau Nobel Laureate Meeting in Lindau, Germany. Out of the 10,000 nominated young scientists from around the world, about 600 people from 88 countries, including myself, were selected based on our academic merits to take part in the meeting. In addition to the young scientists, 65 Nobel laureates from all three scientific fields took part in this special interdisciplinary meeting

2017 **Högskoleföreningens pris för framstående vetenskaplig prestation (Higher Education Association's prize for best PhD work):** This is awarded to one researcher from each of the four faculties at Stockholm University. I received the award for the best thesis work among the 126 defended within the faculty of natural sciences in 2016.

2018 **Travel grant from The Royal Swedish Academy of Sciences:** 8,500 SEK from "Stiftelsen Hierta Retzius fond för vetenskaplig forskning" for participation in the 19th International Symposium on Small Particles and Inorganic Clusters in Hangzhou, China.

PUBLICATIONS

2012– 64 refereed publications in international research journals. **Web of Science h-index: 17**, in total 924 citations (**Google Scholar h-index: 20**, 1,198 citations).

2015 Author of popular texts for the NatureJobs blog and website of the Department of Physics at Stockholm University

INVITED TALKS

2013 *"The Commissioning of DESIREE"*, One-day symposium on E-ring based molecular science, Tokyo, Japan

2013 *"First Results from DESIREE"*, 5th International Workshop on Electrostatic Storage Devices, Heidelberg, Germany

2013 *"First Results from DESIREE"*, XXVIII International Conference on Photonic, Electronic and Atomic Collisions, Lanzhou, China

2014 *"The Commissioning of the Double ElectroStatic Ion Ring ExpEriment – DESIREE"*, 1st Meeting of the COST Action XUV/X-ray light and fast ions for ultrafast chemistry (XLIC) WG2, Port-en-Bessin-Huppain, France

2014 *"Ion-Induced Reactivity in Pyrene Clusters"*, 17th International Conference on Physics of Highly Charged Ions, San Carlos de Bariloche, Argentina

2015 *"Impulse driven reactions in PAH clusters"*, Workshop on Energetic Processing of Large Interstellar Molecules (EPoLM), Leiden, The Netherlands

2015 *"Does hydrogenation protect Polycyclic Aromatic Hydrocarbons?"*, 6th International Workshop on Electrostatic Storage Devices, Tokyo, Japan

2015 *"Collision Induced Growth Processes in PAH Clusters"*, 7th International Symposium "Atomic Cluster Collisions", Madrid, Spain

2015 *"Fragmentation of PAHs and hydrogenated PAHs"*, 3rd COST Action XUV/X-ray light and fast ions for ultrafast chemistry (XLIC) General Meeting, Debrecen, Hungary

2016 *"Collision experiments with hydrogenated PAHs"*, 12th European Conference on Atoms, Molecules, and Photons (ECAMP12), Frankfurt, Germany (Talk given by my co-worker Nathalie de Ruette due to the birth of my son a few days before the meeting)

2016 *"Ion physics in the cryogenic environment of DESIREE"*, Annual meeting of the Swedish physics society, Göteborg, Sweden

2017 *"Ions colliding with clusters of small hydrocarbon chains — a pathway to aromatic rings?"*, From Ultrafast to Ultraslow Process in Molecules and Clusters, Rehovot, Israel

2017 *"The theoretical side of our work on fullerenes and related molecules at Stockholm University"*, Fullerenes in Space Workshop, Edinburgh, United Kingdom

2017 *"Studies of Decaying Atomic and Molecular Cluster Ions"*, 7th International Workshop on Electrostatic Storage Devices, Lyon, France

2018 *"Knockout driven reactions in clusters of PAHs, fullerenes, and hydrocarbon chains"*, XXIst Symposium on Atomic, Cluster and Surface Physics 2018, Obergurgl, Austria

2018 *"Spectroscopy and Mass Spectrometry of Molecules and Clusters in Helium Nanodroplets"*, 19th International Symposium on Small Particles and Inorganic Clusters, Hangzhou, China

2018 *"Spectroscopic studies of molecules solvated in He"*, 1st International Workshop on Molecular Physics 2018, La Laguna, Spain

2018 *"Probing the influence of He on the spectroscopy of C_{60} and corannulene ions"*, 2nd international workshop on Cosmic Fullerenes, Orsay, France

2019 *"Formation of endohedral fullerenes in atom-fullerene collisions"*, 4th Workshop on Energetic Processing of Large Molecules (EPoLM), Madrid, Spain

2019 *"Spectroscopy of ions in helium nanodroplets"*, Advances in Ion Spectroscopy - From Astrophysics to Biology Faraday Discussion, York, United Kingdom

2019 *"Gold clusters in helium droplets"*, XXXI International Conference on Photonic, Electronic and Atomic Collisions, Deauville, France

2019 *"Ionization of large helium nanodroplets"*, ACS Fall Meeting (Chemistry & Water), San Diego, CA, USA

2020 *"Highly charged helium nanodroplets"*, 1st COST Action Molecular Dynamics in the GAS-phase (MD-GAS) General Meeting, Caen, France

2020 *"Astronomical fullerenes in liquid helium'*, CHAINS2020 (National Dutch Chemistry meeting), Veldhoven, The Netherlands

2021 *"Ion spectroscopy with He nanodroplets"*, European Conference on Laboratory Astrophysics ECLA2020, Anacapri, Italy

2022 *"The Stability of Defective PAH and Fullerene Ions over Long Timescales"*, 11th International Meeting on Atomic and Molecular Physics and Chemistry — IMAMPC 2022, Prague, Czech Republic

2022 *"Physics and chemistry of cold ions"*, 14th European Conference on Atoms, Molecules, and Photons (ECAMP14), Vilnius, Lithuania

2022 *"Searching for DIBs carriers in helium droplets"*, IAU Symposium 317: "Honoring Charlotte Moore Sitterly: Astronomical spectroscopy in the 21st century.", IAU General Assembly, Busan, South Korea

PROFESSIONAL SERVICES

2013-2014 Representative for the Young Scientist Forum, part of the COST Action XUV/X-ray light and fast ions for ultrafast chemistry (XLIC)

2014 Co-organizer of the "2nd XLIC General Meeting" in Gdańsk, Poland

2016 Local co-organizer of the 2nd workshop on Energetic Processing of Large Molecules (EPoLM-2) and the 2nd meeting for the members of the COST Action "XUV/X-ray light and fast ions for ultrafast chemistry" (XLIC) WG2 held in Stockholm in April 2016

2013- Referee for international, peer-reviewed scientific journals in physics and astrophysics including Nature Astronomy, Physical Review Letters, The Journal of Physical Chemistry, Astronomy & Astrophysics, and The Astrophysical Journal.

2019 Referee for the 69th Lindau Nobel Laureate Meeting in physics. I selected young scientists for master classes and poster presentations based on their submitted proposals.

INTERNATIONAL COLLABORATIONS

2011- Seven stints (in total 7 weeks) of beamtime on location at the Aribe beamline at the GANIL facility in Caen, France. Principal Investigator for an approved 6 days of beamtime for 2017.

2014 Visiting researcher at the group of Professor Fernando Martín at Universidad Autónoma de Madrid where we performed quantum molecular dynamics simulations of bond-forming reactions in cluster of polycyclic aromatic hydrocarbon molecules. Funded by the COST Action XUV/X-ray light and fast ions for ultrafast chemistry (XLIC), ref: ECOST-STSM-CM1204-091114-050767

2015-16 Visiting researcher at the group of Professor Paul Scheier at Universität Innsbruck at two occasions for modeling multiply charge clusters of fullerene molecules and studying doped nanodroplets of superfluid helium. Second visit funded by the COST Action XUV/X-ray light and fast ions for ultrafast chemistry (XLIC), ref: ECOST-STSM-CM1204-250216-071795

TEACHING EXPERIENCE

2011– Successful completion of the following pedagogic courses at Stockholm University:

- University pedagogics (3 ECTS credits)
- Professional development course 1: Teaching and Learning (7.5 ECTS credits)
- Research Supervision – theory and practice (3 ECTS credits)

2011–16 Teaching assistant during my PhD studies (350 hours per annum) in the following courses at Stockholm University

2021– Teacher at Stockholm University at 25 percent of full time employment with responsibility for:

- FK1005 Good and Bad Science, *Course coordinator and lecturer*

SUPERVISION EXPERIENCE

2020– Currently co-supervisor of my first PhD student, Naemi Florin.

2017– Supervisor of 2 Master and 1 Bachelor level projects at Stockholm University.

OTHER WORK

2010–13 Employed as an astronomer by the Swedish Royal Academy of Sciences between 2010 and 2013. There I would lead observations with the telescopes that were in the Academy's possession. These were held for the public at the Observatory Museum in Stockholm and also for visiting guests.