

Gabriella Di Genova, Ph.D.



Academic Interests

My interdisciplinary work combines the fields of chemistry, theoretical chemistry and astrophysics to tackle some of the open questions of astrochemistry with the ultimate goal to learn about fundamental chemical processes in our Universe.

Education

- 2022 – 2025 **Ph.D. in Chemical Sciences**
Università degli Studi di Perugia - Dipartimento di Chimica, Biologia e Biotecnologie
Curriculum: *Theoretical Chemistry and Computational Modelling*. Ph.D Supervisors: Prof. Nadia Balucani, Prof. Cecilia Ceccarelli, Prof. Marzio Rosi
- 09/2021 – 04/2022 **Master in Theoretical Chemistry and Computational Modeling - TCCM**
Université Toulouse III - Paul Sabatier, Department of Chemistry
- 09/2020 – 07/2022 **Master's degree - LM-54 2nd level degree**
Università degli Studi di Perugia - Dipartimento di Chimica, Biologia e Biotecnologie
Thesis title: *Theoretical study of the impact of metals on (Star)dust formation: focus on Ag-PAH clusters.*
- 2003 – 2006 **Bachelors's degree - L27 1st level degree**
Università degli Studi di Perugia - Dipartimento di Chimica, Biologia e Biotecnologie
Thesis title: *An experimental study of the reaction between atomic nitrogen in the excited ²D state with cyanoacetylene and implication for the atmospheric chemistry of Titan.*

Research Abroad

- 01/06/2024 – 30/09/2024 **Institut de Planetologie et d'Astrophysique de Grenoble (IPAG).** 122 rue de la Piscine, 38041 Grenoble - France.
During this period I worked with Cecilia Ceccarelli on the theoretical modeling for reactions of astrochemical relevance.
- 01/11/2023 – 30/11/2023 **Universitat Autònoma de Barcelona, Departament de Química.** Faculty of Sciences 08193 - Barcelona, Spain. During this period I worked with Albert Rimola on the characterization of structures, and energetics, of interstellar grains.

Research Abroad (continued)

- 11/04/2023 – 15/07/2023 ■ **University of Gothenburg, Department of Chemistry.** Kemigården 4, 412 96 Göteborg, Sweden.
During this period I worked with Gunnar Nyman on the investigation of astrochemical relevant molecules formation by radiative association.
- 19/02/2023 – 20/03/2023 ■ **Institut de Planetologie et d'Astrophysique de Grenoble (IPAG).** 122 rue de la Piscine, 38041 Grenoble - France.
During this period I worked with Cecilia Ceccarelli on the theoretical modeling for reactions of astrochemical relevance.
- 01/02/2022 – 30/04/2022 ■ **Université Toulouse III - Paul Sabatier, Quantum Chemistry and Physics Laboratory - LCPQ.** 118 Route de Narbonne, 31062 Toulouse, France.
During this period I worked on my Master's degree with Aude Simon on the study of the impact of metals in stardust formation.

Scholarships

- 01/06/2024 – 30/09/2024 ■ **Erasmus+ Traineeship**
Institut de Planetologie et d'Astrophysique de Grenoble (IPAG). Grenoble, France
Supervisor: Cecilia Ceccarelli
- 15/05/2023 – 15/07/2023 ■ **Erasmus+ Traineeship**
University of Gothenburg - Department of Chemistry. Gothenburg, Sweden
Supervisor: Gunnar Nyman
- 19/02/2023 – 20/03/2023 ■ **Erasmus+ Traineeship**
Institut de Planetologie et d'Astrophysique de Grenoble (IPAG). Grenoble, France
Supervisor: Cecilia Ceccarelli
- 01/09/2021 – 30/04/2022 ■ **Erasmus+**
Université Toulouse III - Paul Sabatier. Toulouse, France
- 2017 – 2022 ■ **A.Di.S.U.**
Scholarship for University education
- 2021 – 2022 ■ **A.Di.S.U.**
For international mobility

Employment History

- 03/2021 – 08/2021 ■ **Secretary at student's welcome desk,** A.Di.S.U. Perugia, Via Benedetta, 14 - 06123 Perugia, Italy.
Support to the offices of the agency in charge of reception and orientation for Italian and foreign students.

Employment History (continued)

- 2020 ■ **Undergraduate Internship.** Master-Up S.r.l., Via Elce di Sotto 8 - Perugia 06123, Italy.
Contribution to the improvement of a computer software useful for the purposes of online tests.

Conferences and Schools

Attended

- 1 "ACO - Chemical Processes in Solar-type Star-Forming Regions," Toulouse, France 5-9/06/2023, Poster contribution. 📄 URL: <https://aco-conference2023.sciencesconf.org/>.
- 2 "DCTC - VIII Congresso Nazionale della Divisione di Chimica Teorica e Computazionale della SCI," Pisa, Italy 20-22/09/2023, Selected Oral contribution. 📄 URL: <https://www.skies-village.it/dctc2023/>.
- 3 "EGU General Assembly 2024," Vienna, Austria 14-19/04/2024, Selected Oral contribution. 📄 URL: <https://www.egu24.eu/>.
- 4 "IMAMPC'2024 - 13th International Meeting on Atomic and Molecular Physics and Chemistry," Warsaw, Poland 9-12/07/2024, Selected Oral contribution. 📄 URL: <https://www.imampc2024.pl/>.
- 5 "Quantumgrain Workshop: Emerging Horizons in the Chemistry of the Universe," Barcelona, Spain 9-12/06/2024, Selected Oral contribution. 📄 URL: <https://workshop.quantumgrain.eu/>.
- 6 "School of Scientific Communication in Astronomy," Bertinoro, Italy 2-6/10/2023. 📄 URL: <https://andymelandri.wixsite.com/scia2023>.
- 7 "SECSmol - Southern European Conference on the Science of Molecules," Perugia, Italy 27-29/09/2023, Selected Oral contribution. 📄 URL: <http://www.dccb.unipg.it/en/secsmol>.
- 8 "XIX Congresso Nazionale di Scienze Planetarie," Bormio, Italy 5-9/02/2024, Selected Oral contribution. 📄 URL: <https://www.scienzeplanetarie.it/congresso-nazionale-bormio-2024/>.

Skills

- Languages ■ Native: Italian. Strong reading, writing and speaking competencies for: English, Catalan, Romanian. Basic reading, writing and speaking competencies for Spanish and French.
- Coding ■ Fortran77, Python, R, $\LaTeX$.
- Misc. ■ Presentation Software (advanced), Spreadsheets (advanced), Word processors (advanced), Network architecture (basic), Operating systems (advanced), Data modeling tools (intermediate).

References

Prof. Nadia Balucani

University of Perugia,
Via Elce di Sotto, 8 - 06123 Perugia - Italy
<https://nadiabalucani.weebly.com/>

Prof. Marzio Rosi

Università degli Studi di Perugia
Dipartimento di Ingegneria Civile ed Ambientale
Via G. Duranti, 93 - 06125 - Perugia, Italy
<https://www.unipg.it/personale/marzio.rosi>

Prof. Gunnar Nyman

University of Gothenburg
Department of Chemistry
Kemigården 4, 412 96 Göteborg, Sweden
<https://www.gu.se/en/about/find-staff/gunnarnyman>

Prof. Cecilia Ceccarelli

Université Grenoble Alpes
Institut de Planétologie et d'Astrophysique de Grenoble
122 rue de la Piscine, 38041 Grenoble - France
<https://ipag.osug.fr/french/recherche/equipes/interstellaire/>

Prof. Aude Simon

Université Toulouse III - Paul Sabatier
Quantum Chemistry and Physics Laboratory - LCPQ
118 Route de Narbonne, 31062 Toulouse, France
<https://www.lcpq.ups-tlse.fr/spip.php?article1130>

Prof. Albert Rimola

Universitat Autònoma de Barcelona
Departament de Química
Faculty of Sciences 08193 - Barcelona, Spain
<https://www.quantumgrain.eu/>