PERSONAL INFORMATION

Mirko Cestari

📍 Via Carbonara 2/f, 40017 San Giovanni in Persiceto (Italy)

✉ m.cestari@cineca.it

in https://www.linkedin.com/in/mirkocestari/

Sex Male | Date of birth 27 Jul 1979 | Nationality Italian

WORK EXPERIENCE

Aug 2018–Present

Team Leader

CINECA, www.cineca.it
via Magnanelli 6/3, 40033 Casalecchio di Reno (Italy)

– Coordination of the "HPC and Cloud Technologies" team.
– Guiding the HPC infrastructure evolution, with focus on computing, cloud and data management solutions.
– Member of the team to propose CINECA as hosting entity for EuroHPC pre-exascale system (EUROHPC-2019-CEI-PE-01).
– Technical representative for the definition of Leonardo requirements, Italian world-class pre-exascale system co-funded by EC under Horizon 2020.
– Technical representative in H2020 projects aiming to procure innovative solutions for High-Performance Computing, PPI4HPC (funded under H2020-EU.1.4.1.3.) and ICEI (funded under H2020-Eu.1.4.)
– Technology scouting.
– High level support on different scientific domains.
– Consultancy and teaching on state-of-the-art HPC hardware technologies and computing methodologies.
– Code development and modernization of applications.
– Working in synergy with the system management team in deploying the main supercomputing systems and prototypes.

Business or sector Information and communication

May 2010–Jul 2018

IT Support - Programmer Analyst

CINECA, www.cineca.it
via Magnanelli 6/3, 40033 Casalecchio di Reno (Italy)

– High-level support for industrial and academic users.
– Design, development and maintenance of a python HPC application for a major Italian assurance company.
– Analysis of highly scalable applications for D.E.M. simulations in collaboration with a major Italian pharmaceutical company.
– Teaching (feedback score: 8.98/10

Business or sector Information and communication

EDUCATION AND TRAINING

2006–2009

PhD - Research on Material Chemistry, Thesis Title: 'Atomistic

modelling of liquid crystal materials properties: a theoretical and computational methodology'

University of Padua, Padova (Italy)

– Computer programming.
– High Performance Computing.
– Material chemistry modeling.
– Computer simulations.
– Writing scientific reports and peer-reviewed papers.

2007–2008 Visiting Scientist

University of Southampton, Southampton (United Kingdom)

– Computer programming.
– Research in the Liquid Crystal field.
– Project coordination with experimentalists.

2004–2005 Research Grant (INSTM, National Interuniversity Consortium of Materials Science and Technology)

University of Padua, Padova (Italy)

– Development of a stochastic model for 5CB dielectric decay.
– Extensive use of Mathematica symbolic calculation.
– Fortran 90 and Python programming.

1998–2003 M.Sc. Chemistry

Univeristy of Ferrara, Ferrara (Italy)

– Physical Chemistry.Thesis "Application of a modern multi-reference perturbation theory to electronic spectroscopy of heterocyclic aromatic molecules."

PERSONAL SKILLS

Mother tongue(s)   Italian

Foreign language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

English

Communication skills

– Good mediation skills learned by interacting with industrial and academic users.
– Good communication skills improved with multiple teaching courses and presentations.
– Inspirational and motivational skills gained as a team leader

Organisational / managerial skills

– Currently responsible for a team of 12 staff members
– Coordinating activities as a work package leader and task leader in European projects.
– Technical coordinator of internal projects and Italian projects

ADDITIONAL INFORMATION

Publications

- *Fenix: Distributed e-Infrastructure Services for EBRAINS.* Lecture Notes in Computer Science. S. R. Alam *et al.* **Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics, Volume 12339, 81 (2021)**

- *Archival Data Repository Services to Enable HPC and Cloud Workflows in a Federated Research e-Infrastructure,"* S. R. Alam *et al.* **2020 IEEE/ACM International Workshop on Interoperability of Supercomputing and Cloud Technologies.** *SuperCompCloud* **pp. 39-44 (2020).**

- *ELIXIR-IT HPC@CINECA: High performance computing resources for the bioinformatics community.* Castrignanò Tiziana *et al.* **BMC Bioinformatics, Volume 21, Article number 352 (2020).**

- *Investigation of particle dynamics and classification mechanism in a spiral jet mill through computational fluid dynamics and discrete element methods.* Bnà Simone, and Ponzini Raffaele, and Cestari Mirko, and Cavazzoni, Carlo, and Cottini Ciro, and Benassi Andrea. **Powder Technology, 364, 746-773 (2020).**

- *Phase behavior and properties of the liquid-crystal dimer 1", 7"-bis (4-cyanobiphenyl-4'-yl) heptane: a twist-bend nematic liquid crystal.* Cestari, M and Diez-Berart, S and Dunmur, DA and Ferrarini, A and de La Fuente, MR and Jackson, DJB and Lopez, DO and Luckhurst, GR and Perez-Jubindo, MA and Richardson, RM and others. **Physical Review E, 84, 031704 (2011).**

- *Crucial role of molecular curvature for the bend elastic and flexoelectric properties of liquid crystals: mesogenic dimers as a case study.* Cestari, Mirko and Frezza, Elisa and Ferrarini, Alberta and Luckhurst, Geoffrey R. **Journal of Materials Chemistry, 21, 12303 (2011).**

- *Molecular field theory with atomistic modeling for the curvature elasticity of nematic liquid crystals.* Cestari, Mirko and Bosco, Alessandro and Ferrarini, Alberta. **The Journal of chemical physics, 131, 054104 (2009).**

- *Curvature elasticity of nematic liquid crystals: simply a matter of molecular shape? Insights from atomistic modeling.* Cestari, Mirko and Ferrarini, Alberta. **Soft Matter, 5, 3879 (2009).**

- *A multireference n-electron Valence State Perturbation Theory study of the electronic spectrum of s-tetrazine.* Angeli, Celestino and Cimiraglia, Renzo and Cestari, Mirko. **Theoretical Chemistry Accounts, 123, 287 (2009).**

- *Developments in the n-electron valence state perturbation theory.* Angeli, Celestino and Borini, Stefano and Cavallini, Alex and Cestari, Mirko and Cimiraglia Renzo and Ferrighi, Lara and Sparta, Manuel. **International journal of quantum chemistry, 106, 686 (2006).**

- *A quasidegenerate formulation of the second order n-electron valence state perturbation theory approach.* Angeli, Celestino and Borini, Stefano and Cestari, Mirko and Cimiraglia, Renzo. **The Journal of chemical physics, 121, 4043 (2004).**