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|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| PERSONAL INFORMATION                                             | Fabio Bruni                                                                                                                                                                                               |      |
|                                                                  | Dipartimento di Scienze, via della vasca navale 84, 00146 Roma                                                                                                                                            |      |
|                                                                  | 067533-7223, 329-0571450                                                                                                                                                                                  |      |
|                                                                  | <a href="mailto:fabio.bruni@uniroma3.it">fabio.bruni@uniroma3.it</a>                                                                                                                                      |      |
|                                                                  | Sex male   Date of birth March 6, 1962   Nationality Italy                                                                                                                                                |      |
| CURRENT POSITION<br>SSD (if applicable)                          | Full professor<br>PHYS-06/A                                                                                                                                                                               |      |
| RESEARCH TOPICS / EXPERIENCES                                    | <ul style="list-style-type: none"> <li>Soft and Condensed Matter: structural and dynamical properties</li> <li>Neutron Diffraction and Spectroscopy</li> <li>Broadband Dielectric Spectroscopy</li> </ul> |      |
| SCIENTIFIC / TECHNICAL QUALIFICATION<br>(source: Google Scholar) | H-index:                                                                                                                                                                                                  | 46   |
|                                                                  | No. publications:                                                                                                                                                                                         | 174  |
|                                                                  | No. citations:                                                                                                                                                                                            | 7721 |

## EDUCATION AND TRAINING

|            |                                                         |
|------------|---------------------------------------------------------|
| 1991/08/01 | PhD in BioPhysics, Cornell University (Ithaca, NY, USA) |
| 1986/03/20 | Laurea in Physics, Sapienza Università di Roma (Italy)  |

## WORK EXPERIENCE

|            |                                 |
|------------|---------------------------------|
| since 2016 | Full professor                  |
|            | Università degli Studi Roma Tre |
| since 2004 | Associate professor             |
|            | Università degli Studi Roma Tre |
| since 1995 | Researcher                      |
|            | Università degli Studi Roma Tre |

## MAIN ROLES AND RESPONSIBILITIES

|                            |                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| From 2024<br>To present    | Coordinator Research Infrastructure, Distretto Tecnologico Beni e Attività Culturali - Centro di Eccellenza ( <a href="https://www.dtclazio.it/">https://www.dtclazio.it/</a> ) |
| From 2022<br>To present    | Deputy Director, Dipartimento di Scienze, Università degli Studi Roma Tre                                                                                                       |
| From 2017/01<br>To 2022/01 | President of the Italian Society of Neutron Spectroscopy (SISN, <a href="http://www.sisn.it">http://www.sisn.it</a> )                                                           |
| From 2017/05<br>To present | Coordinator of the PhD School on “Scienze della Materia, Nanotecnologie e Sistemi Complessi”, Università degli Studi Roma Tre                                                   |
| From 2008<br>To 2010       | Consultant, Segretariato Generale della Presidenza della Repubblica, Palazzo del Quirinale, Roma                                                                                |
| From 1993<br>To 2010       | Consultant, Centro Linceo Interdisciplinare “Beniamino Segre”, Accademia Nazionale dei Lincei, Roma                                                                             |
| From 1990<br>To 1991       | Research Specialist, Boyce-Thompson Institute, Cornell University, Ithaca (NY), USA                                                                                             |

## SERVICE TO NATIONAL AND INTERNATIONAL COMMUNITY

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| From 2022<br>To present | University Delegate, Rome Technopole, spoke 6                                                |
| From 2021<br>To 2022    | Component of GEV (Gruppo Esperti per la Valutazione), ANVUR, SSD FIS/07                      |
| From 2017<br>To 2022    | Italian Delegate of the European Neutron Scattering Association (ENSA)                       |
| From 2014<br>To 2017    | Member, Scientific Advisory Committee of the European Spallation Source (ESS), Lund (Sweden) |
| From 2009<br>To 2011    | Member of the Selection Panels, Institut Laue-Langevin (ILL), Grenoble (France)              |
| From 2002<br>To 2005    | Member of the Selection Panels, ISIS Neutron Source, Oxford (UK)                             |
| From 2002<br>To 2004    | Member of the Board, International Dielectric Society                                        |

## TEACHING EXPERIENCE

|                         |                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------|
| From 2023<br>To present | Effetti dinamici in Architettura, corso di Laurea in Scienze dell'Architettura (4 CFU)            |
| From 2015<br>To present | Processi Fisici in Enogastronomia, corso di Laurea in Scienze e Culture enogastronomiche, (8 CFU) |
| From 2015<br>To present | Introduzione alla Materia Soffice, corso di Laurea in Scienze e Culture enogastronomiche, (6 CFU) |
| From 2015<br>To present | Fondamenti di Fisica, corso di Laurea in Scienze dell'Architettura (6 CFU)                        |
| From 2004<br>To 2015    | Fisica, corso di Laurea in Scienze Biologiche (9 CFU)                                             |
| From 2004<br>To 2015    | Fisica della Materia Biologica, corso di Laurea Magistrale in Fisica (6 CFU)                      |

## MAIN RESEARCH EXPERIENCE

|      |                                                                            |
|------|----------------------------------------------------------------------------|
| 2021 | For-ECO, Gruppi di Ricerca - Regione Lazio, PI, 150 k€                     |
| 2017 | NANODRIVE, EU- Marie Skłodowska-Curie Actions, Project Coordinator, 280 k€ |

## OTHER RELEVANT EXPERIENCES

|                         |                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| From 2017<br>To present | Member of the workgroup responsible of the "Settimana della Cucina Italiana nel Mondo", organized by the Italian Ministry of Foreign Affairs.                          |
| From 2018<br>To present | Organizer of the International Workshop WaterX, La Maddalena (OT). 2018, 2022, 2024, 2026 editions. See: <a href="https://www.water-x.eu/">https://www.water-x.eu/</a> |

## HONOURS, AWARDS, MEMBERSHIPS, OTHER QUALIFICATIONS

|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| From 2019<br>To 2024 | Visiting Professor, University College Dublin (Ireland)                                       |
| 1990-1991            | Fondazione San Paolo di Torino, fellowship                                                    |
| 1990                 | "Mario Einaudi" Center for International Studies, Cornell University, Ithaca (NY), USA. award |

## PUBLICATIONS

List of the most relevant publications (up to 20)

1. Mancinelli, R; Botti, A; Bruni, F; Ricci, MA; Soper, AK. *Hydration of sodium, potassium, and chloride ions in solution and the concept of structure maker/breaker*. J. Phys. Chem. B, 111, 48, 13570 (2007). **887 citations**
2. Soper, AK; Bruni, F; Ricci, MA. *Site-site pair correlation functions of water from 25 to 400 oC: Revised analysis of new and old diffraction data*. J. Chem. Phys. 106, 247 (1997). **739 citations**
3. Mancinelli, R; Botti, A; Bruni, F; Ricci, MA; Soper, AK. *Perturbation of water structure due to monovalent ions in solution*. Phys. Chem. Chem. Phys. 9, 23, 2959 (2007). **426 citations**
4. Botti, A; Bruni, F; Imberti, S; Ricci, MA; Soper, AK. *Ions in water: The microscopic structure of concentrated NaOH solutions*. J. Chem. Phys. 120, 21, 10154 (2004). **216 citations**
5. Jedlovsky, P; Brodholt, JP; Bruni, F; Ricci, MA; Soper, AK; Vallauri, R. *Analysis of the hydrogen-bonded structure of water from ambient to supercritical conditions*. J. Chem. Phys. 108, 20, 8528 (1998). **214 citations**
6. Bruni, F., Ricci, M. A., Soper, A. K. *Water confined in Vycor glass. I. A neutron diffraction study*. J. Chem. Phys. 109, 4, 1478 (1998). **190 citations**
7. Bruni, F., Leopold, A. C. *Glass transitions in soybean seed: relevance to anhydrous biology*. Plant Physiol. 96, 2, 660 (1991). **186 citations**
8. Rovere, M; Ricci, MA; Vellati, D; Bruni, F. *A molecular dynamics simulation of water confined in a cylindrical SiO<sub>2</sub> pore*. J. Chem. Phys. 108, 23, 9859 (1998). **184 citations**
9. Imberti, S; Botti, A; Bruni, F; Cappa, G; Ricci, MA; Soper, AK. *Ions in water: The microscopic structure of concentrated hydroxide solutions*. J. Chem. Phys. 122, 19, 194509 (2005). **162 citations**
10. Soper, A. K; Bruni, F.; Ricci, M. A. *Water confined in Vycor glass. II. Excluded volume effects on the radial distribution functions*. J. Chem. Phys. 109, 4, 1486 (1998). **161 citations**
11. Botti, A; Bruni, F; Imberti, S; Ricci, MA; Soper, AK. *Ions in water: The microscopic structure of a concentrated HCl solution*. J. Chem. Phys. 121, 16, 7840 (2004). **152 citations**
12. Bruni, F; Imberti, S; Mancinelli, R; Ricci, MA; *Aqueous solutions of divalent chlorides: ions hydration shell and water structure*. J. Chem. Phys. 136, 064520, (2012). **143 citations**
13. Mazza, M., Stokely, K., Pagnotta, S. E., Bruni, F., Stanley, H. E., Franzese, G. *More than one dynamic crossover in protein hydration water*. PNAS 108, 19873-19878 (2011). **119 citations**
14. Pietropaolo, A; Senesi, R; Andreani, C; Botti, A; Ricci, MA; Bruni, F. *Excess of proton mean kinetic energy in supercooled water*. Phys. Rev. Lett. 100, 12, 127802 (2008). **117 citations**
15. Pizzitutti, F.; Bruni, F.; *Electrode and interfacial polarization in broadband dielectric spectroscopy measurements*. Rev. Sci. Instr. 72, 2502-2504, (2001). **114 citations**
16. Botti, A.; Bruni, F.; Imberti, S.; Ricci, M.A.; Soper, A.K. *Solvation of hydroxyl ions in water*. J. Chem. Phys. 119, 5001-5004 (2003). **111 citations**
17. Ricci, MA; Bruni, F; Gallo, P; Rovere, M; Soper, AK; *Water in confined geometries: experiments and simulations*, J. Phys. Cond. Matt. 12, A345, (2000). **110 citations**
18. Pagnotta, SE; McLain, S.E; Soper, AK; Bruni, F; Ricci, MA; *Water and trehalose: how much do they interact with each other?* J. Phys. Chem. B 114, 4904-4908 (2010). **109 citations**
19. McLain, S.E; Imberti, S.; Soper, A.K.; Botti, A.; Bruni, F.; Ricci, M.A. *Structure of 2 molar NaOH in aqueous solutions from neutron diffraction and empirical structure refinement*. Phys. Rev. B, 74, 094201 (2006). **97 citations**
20. Botti, A., Bruni, F., Ricci, M. A., Soper, A. K. *Neutron diffraction study of high density supercritical water*. J. Chem. Phys. 109, 3180-3184 (1998). **94 citations**

**According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.**