europass Curriculum Vitae

INFORMAZIONI PERSONALI **Cognome STROPPA Nome ALESSANDRO**

ESPERIENZA PROFESSIONALE

Da 01.01.2020 a oggi	**Research Director CNR-SPIN (L'Aquila). Competition winner (3rd place in the ranking). Rif. Provv. prot. n. 0084703 30.12.2020. Bando n. 315.40 DR**
Da 16.12.2019 a 31.12.2019	**Senior (First) Researcher CNR-SPIN (L'Aquila). Competition winner (2nd place in the ranking). Rif.: Lettera di assunzione prot. AMMCNT n. 0083957 del 26/11/2019- Vincitore concorso Bando n. 367.186 PR**
Da 30.10.2012 a 16.12.2019	**Tecnologo CNR-SPIN (Tempo indeterminato-III Liv.); Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila. Attività di ricerca teorico-computazionale in Fisica dei Materiali.**
da 21.5.2012 a 30.10.2012	**Ricercatore (Tempo determinato-III Liv.); CNR-Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila. Studio teorico computazionale di composti ferroelettrici e magnetici; (progetto FIRB; Referente scientifico: dott.ssa S. Picozzi).**
da 02.05.2011 a 01.05.2012	**Ricercatore (Tempo determinato-III Liv.); CNR-Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila. Studio teorico computazionale di composti multiferroici; (progetto BISMUTH; Referente scientifico: dott.ssa S. Picozzi).**
da 02.11.2010 a 01.05.2011	**Ricercatore (Tempo determinato-III Liv.); CNR-Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche-Università degli studi dell'Aquila; Studio teorico computazionale di composti multiferroici (progetto BISMUTH; Referente scientifico: dott.ssa S. Picozzi).**
da 1.1.2010 a 31.10.2010	**Ricercatore (Tempo determinato-III Liv.); CNISM-Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila; Studio teorico computazionale sui superconduttori (Referente scientifico: prof. A. Continenza).**
da 01.10.2009 a 31.12.2009	**Assegnista di Ricerca; CNR-INFM c/o CASTI Regional Laboratory. Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila. Studi teorici sui multiferroici (BISMUTH; Referente scientifico: Dott.ssa S. Picozzi).**
Da 01.10.2008 a 30.09.2009	**Assegnista di Ricerca; CNR-INFM c/o CASTI Regional Laboratory. Sede di lavoro: L'Aquila c/o Dip. Scienze Fisiche e Chimiche- Università degli studi dell'Aquila. Studi teorici sui multiferroici (BISMUTH; Referente scientificio: dott.ssa S. Picozzi).**
Da 03.04.2006 a 30.09.2008	**Post Doc - CMS-University of Vienna. Sede di lavoro: Università di Vienna-Austria. Studi a principi primi su catalisi eterogenea e materiali multifunzionali con metodi avanzati in teoria del funzionale densità (Referente scientifico: prof. G. Kresse).**

Da 01.01.2006 a 31.03.2006	**Post Doc - Dipartimento Fisica Teorica-Università di Trieste. Sede di lavoro: Università di Trieste; Studi a principi primi su localizzazione elettronica in eterostrutture a semiconduttore; (Referente scientifico: prof. M. Peressi)**
Da 01.01.2003 a 31.12.2005	**Dottorato di Ricerca in Fisica; Dipartimento Fisica Teorica-Università di Trieste; Sede di lavoro: Università di Trieste; Studi a principi primi su interfaccie a semiconduttore e nuovi materiali;(Referente scientifico: prof. M. Peressi)**
Da 01.08.2002 a 30.09.2002	**Borsa di studio post-laurea; Dipartimento Fisica Università degli Studi dell'Aquila; Sede di lavoro: L'Aquila; Studi a principi primi su semiconduttori magnetici; Referente scientifico: prof. A. Continenza)**

ISTRUZIONE E FORMAZIONE

da 06.11.1995 a 19.06.2002	**Laurea in Fisica (110/110 e Lode). Università degli studi dell'Aquila. Titolo della tesi: "Structural, electronic and magnetic properties of magnetic semiconductor" Relatori: prof. A. Continenza; dott.ssa S. Picozzi**
da 09.1990 a 07.1995	**Diploma Liceo Scientifico (57/60). "G. Galilei", Pescara.**

COMPETENZE PERSONALI

- Spirito di gruppo;
- Ottima capacità di adeguarsi ad ambienti multiculturali, comprovata dalle numerose esperienze lavorative all'estero (convegni, visiting professor, etc).
- Ottima capacità di comunicazione ottenuta dai numerosi seminari, relazioni su invito, insegnamenti in Italia e all'estero.
- Ottima capacità organizzativa e collaborativa nel campo della ricerca scientifica;
- Ottima esperienza nella gestione di progetti e gruppi di collaboratori.

LINGUA MADRE

ITALIANO

ALTRE LINGUE

	COMPRENSIONE		PARLATO		PRODUZIONE SCRITTA
	Ascolto	Lettura	Interazione	Produzione orale	
Inglese	C2	C2	C2	C2	C2
Francese	B1	B1	B1	B1	B1
Tedesco	A1	A1	A1	A1	A1
	Autovalutazione				

COMPETENZE PROFESSIONALI

His activity is mainly based on density functional theory (DFT) complemented by symmetry mode and model hamiltonian analysis for the study of multifunctional systems. He has studied low dimensional systems (2D), oxides; hybrid organic-inorganic perovskites;

ferroelectric materials and multiferroics; metal-organic frameworks; twisted bilayer graphene; magnetic bilayers. He performed pioneering DFT simulations on multiferroic MOFs.

COMPETENZA DIGITALE

AUTOVALUTAZIONE				
Elaborazione delle informazioni	Comunicazione	Creazione di Contenuti	Sicurezza	Risoluzione di problemi
Utente Avanzato	**Utente Avanzato**	**Utente Avanzato**	**Utente Avanzato**	**Utente Avanzato**

ULTERIORI INFORMAZIONI

BIBLIOMETRICS [Source Web of Science All Databases - 28/03/2022]: 124 publications; h-index:39; Sum of Times Cited:5769 [Average per item: 46.52]; Without self-citations:5520; Citing articles: 4325 (Without self-citations: 4235); Presently: 3 Highly Cited Papers in the Field.
AWARDS/RECOGNITIONS
• 2020-2022: Selected as Collaborator and Host Institution of HPC-Europa3 Transnational Access program: 20 visitors are financially supported and provided with HPC time (see Web Page) supervised by A.S.
• Included in the "Top Scientists 2019-2020", see https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918, Table-S7-singleyr-2019;
• 19-21/11/2019: Certificate of appreciation for “his important contributions to the theoretical understanding of microscopic mechanisms of multiferroicity and magnetoelectricity in perovskite metal-organic frameworks”, by Nature Conference: Physical Properties of Metal-Organic Frameworks, Nankai, China;
• 2017-2020: Shanghai Eastern Scholar Chair Professor (Distinguished academic honor awarded by Shanghai Municipal Education Commission);
• 2016-2018: High-End foreign expert (Shanghai University) (it is awarded to non-ethnic Chinese experts, who arestrategic scientists, leading experts in natural science);
• National Scientific Habilitation for: 02/B1 - Fisica Sperimentale della Materia - II Fascia (26/07/2018 al 26/07/2027); 02/B2 - Fisica Teorica della Materia- I Fascia (05/12/2017 al 05/12/2026); 02/B2 - II Fascia (11/12/2013 al 11/12/2022);
• 2017: Honor for "Highly Cited Papers" in Web of Science in 2017: 5 Highly Cited papers in Web of Science (Highly Cited papers reflect the top 1% of papers by field and publication year).
• 2013 – present.: Appointment as Visiting Research Scholar (NCSU, Dep. Chemistry, USA);
• 08-13/09/2013: Research Highlight talk at FEMS EUROMAT 2013, Sevilla;
• 2008: “Best 2008 NJP Collection”: the article A Stroppa and G Kresse 2008 New J. Phys. 10 063020 has been selected by the editors of New Journal of Physics for inclusion in the exclusive ‘Best of 2008’ collection. Articles in this collection have been nominated on the basis of a range of criteria including referee endorsement, novelty, scientific impact and broad appeal;
• 26-30/09/2011: 1st best oral presentation in Condensed Matter Physics XCVII Congresso Nazionale SIF, L'Aquila, Italy;
• 26/09-01/10/2005: 2nd best oral presentation in Condensed Matter Physics XCI Congresso Nazionale SIF, Catania, Italy;
Journal Cover pages for:
• https://pubs.acs.org/pb-assets/images/_journalCovers/jpclcd/jpclcd_v010i006-3.jpg?0.24593661478795636
• https://onlinelibrary.wiley.com/toc/1097461x/2016/116/20
• https://pubs.acs.org/toc/jpclcd/11/13
PROJECTS
• CNR Short Term Mobility (STM-IN), 12/2019;
• Shanghai Eastern Chair Professor from 22/02/2017 to 31/12/2019;
• Fondazione Cariplo, grant 2013 Co-PI, from 01/05/2014 to 31/10/2017;
• Bilateral Project International Exchanges 2018 – Royal Society UK from 01/09/2019 to 31/08/2020;
• Bilateral Project CNR-Romanian Academy of Science from 05/02/2014 to 31/12/2016;
• SEED CNR SPIN (3500 Euro) from 06/06/2012 to 30/04/2013;
• CNR Short Term Mobility (STM-OUT), 07/2014.
ROLE/RESPONSABILITY
• Deputy Director CNR-SPIN Unit L’Aquila, from 01/05/2019 to present;
• Member of Outreach Working Group (CNR-SPIN, since 2020).
SHORT TERM VISITS (Invited by):
Prof. P. Radaelli, Oxford University (England); Prof. W. Ren, Shanghai University (China); Prof. R.-G. Xiong, Southeast University (China), Prof. Y. Sun, Chinese Academy of Sciences (China); Prof. H. Wu, Prof. H. Xiang, Fudan University (China); Prof. C. Draxl, Humbdolt University (Germany); Prof. V. Amaral, University of Aveiro (Portugal); Dr. R. Gebauer, ICTP Trieste (Italy); Prof. D. Vanderbilt, Rutgers University (USA);Prof. J.M. Perez-Mato, Bilbao University (Spain); Dr. C. Ederer, Trinity College (Ireland); Prof. S. Bluegel, IFF Institute (Germany); Prof. M. Whangbo, NCSU (USA); Prof. C. Franchini and G. Kresse, University of Vienna (Austria); Dr. V. Zapf, Los Alamos Nat.

Lab. (USA); Prof. C. Fennie, Cornell Univ. (USA); Prof. J. Rondinelli, Drexel Univ. (USA); Prof. A.K. Cheetham, Cambridge University (UK), Prof. S.W. Hla, Argonne Nat. Lab. (USA);

TEACHING (since 2011):

Inorganic Chemistry, Geometry, Mathematics for Physicists, Social Statistics, Group theory applied to solid state physics; International Teaching "The beauty of Symmetry", International Education Forum, SHU, 06/2018; "Symmetry in Physics: an introduction to Group Theory", International Education Forum, SHU, 06/2017; Frontiers in Physics (on-line teaching, South-Est University, China, since 2021); Group Theory in Physics (South-Est University, China, since 2021);

OUTREACH

A.S. is actively involved in outreach activities for Primary school students (see web page)

• 27/11/2020: Street Science Univaq, Event: "Infinity explained to Primary School students"
• 27/02/2020: Workshop: "Symmetries for Primary School Teachers", Dep. Human Science, University of L'Aquila.
• 27/09/2019: Street Science, Event "Simmetries" for Primary School students;
• 09/05/2019: Seminar "Hybrid perovskites: A bridge between Physics and Chemistry" for freshmen.

GRADUATE, PH.D. AND POST-DOCTORAL RESEARCHERS (PI and Co-PI)

Many PhD or Post-doc students for short term visits and Master Thesis at University of L'Aquila (see web page).

KEYNOTE/PLENARY LECTURES

• Nature Conference: Physical Properties of Metal-Organic Frameworks, Tianjin (China), 19-21/11/2019
• QIF2019-Shanghai University- Shanghai (China), 18-22/11/2019
• ROMPHYSCHEM 16, Galati (Romania), 21-23/09/2016
• 5th International Symposium on Structure-Property Relationship in Solid State Materials (SPSSM-5), Qingdao, China, 22-27/06/2014

TALKS AT CONFERENCES/WORKSHOPS: 42 talks: 19 invited; 2 Plenary; 2 Keynote; 19 contributed; 32 Posters.

HIGH FORMATION SCHOOLS (PARTICIPATION): 25

SEMINAR TALKS AT INTERNATIONAL CENTERS/UNIVERSITIES: 37

BOARD MEMBER OF PHD THESIS JURY

Dr. C. O. Amorim (15/02/2019, University of Aveiro, Portugal); Dr. M. Barbosa (University of Porto, Portugal). Dr. C.L. Gomez-Aguirre, (18/12/2015, University of Coruna); Dr. E. Bruyer, (21/11/2012, UCCS Artois); Dr. F. Virot, (13/07/2012, Aix-Marseille-University); Dr. J. Goncalves (15-16/12/2011, University of Aveiro, Portugal)

REFEREEING ACTIVITY

• Phys. Rev. B; Phys. Rev. Lett.; Phys. Status Solidi; J. Mater. Sci.; J. Appl. Phys.; J. Magn. Magn. Mater.; Appl. Phys. Lett.; Sci. Rep.; Nat. Chem.; J. Am. Chem. Soc.; Chem. Phys. Lett., Nat. Commun., Nat. Rev. Mater.; Chem. Mat.; Eur. J. Inorg. Chem.; Angew. Chem.; J. Chem. Phys., Comput. Mater. Sci.; etc.
• ANCS (National Authority for Scientific Research-Romania) for young research proposal.
• International Fellowship Mobility Program for Experienced Researchers in Croatia (NEWFELPRO).
• ERC (Starting grant)
• Basic Energy Sciences-U.S. Department of Energy (USA).

BOOKS

• W. Li, A. Stroppa, S. Gao, Z. Wang, A.K. Cheetham, "Hybrid Organic-Inorganic Perovskites", Wiley-VCH, (Book)
• A. Stroppa, et al. "Computational approach to organic ferroelectrics", in "Research Horizons of Nanosystems", (Taylor&Francis group), Editor: Mihai V. Put (Chapter)
• "Ferroelectricity and Spin-Orbit coupling in Organic-Inorganic Perovskite Halides", in "Theoretical Modeling of Mixed Organic-Inorganic Perovskites for Photovoltaic Applications", edited by G. Giorgi and K. Yamashita. (Chapter)

EDITORIAL BOARD MEMBER

• Molecules (Inorganic Chemistry Section)

CONFERENCE/SCHOOL ORGANIZER/LECTURER

• MaX School on Advanced Materials and Molecular Modelling with Quantum ESPRESSO (17-28/05/2021) – Hosted on-line by ICTP (smr 3622); (Organizer and Lecturer)
• International School on Crystallographic Groups and Their Representations. Workshop on Topological Insulators, 30/06-07/07/2019, ICQMS-SHU, Shanghai (China); (Organizer)
• Exciting Shanghai School: First-principles simulations in materials science, 18-22/11/2018, ICQMS-SHU, Shanghai (China); (Organizer and Lecturer)
• Shanghai International Crystallographic School, 11-17/06/2017-Shanghai (China); (Organizer and Lecturer)
• 07-11/09/2010 "European School for Multiferroics 2010", L'Aquila, Italy (Local Organizer);
• 19/09-22/10/2010 "Aquifer: AQUila Initiatives for FERroics", L'Aquila, Italy (Local Organizer).

5 PUBBLICAZIONI RAPPRESENTATIVE

1. Title: Tunable ferroelectric polarization and its interplay with spin-orbit coupling in tin iodide perovskites
Author(s): Stroppa, Alessandro; Di Sante, Domenico; Barone, Paolo; et al.
Source: Nature Communications Volume: 5 Published: DEC 2014
Times Cited: 164
DOI: 10.1038/ncomms6900

2. Title: Accurate surface and adsorption energies from many-body perturbation theory
Author(s): Schimka, L; Harl, J; Stroppa, A; et al.
Source: Nature Materials Volume: 9 Issue: 9 Pages: 741-744 Published: 2010
Times Cited: 332
DOI: 10.1038/NMAT2806

3. Title: Tuning the Ferroelectric Polarization in a Multiferroic Metal-Organic Framework
Author(s): Di Sante, Domenico; Stroppa, Alessandro; Jain, Prashant; et al.
Source: Journal of the American Chemical Society Volume: 135 Issue: 48 Pages: 18126-18130 Published: DEC 4 2013
Times Cited: 182
DOI: 10.1021/ja408283a

4. Title: Electric Control of Magnetization and Interplay between Orbital Ordering and Ferroelectricity in a Multiferroic Metal-Organic Framework
Author(s): Stroppa, A; Jain, P; Barone, P; et al.
Source: Angewandte Chemie-International Edition Volume: 50 Issue: 26 Pages: 5847-5850 Published: 2011
Times Cited: 185
DOI: 10.1002/anie.201101405

5. Title: Hybrid Improper Ferroelectricity in a Multiferroic and Magnetoelectric Metal-Organic Framework
Author(s): Stroppa, A.; Barone, P.; Jain, P.; et al.
Source: Advanced Materials Volume: 25 Issue: 16 Pages: 2284-2290 Published: APR 24 2013
Times Cited: 205
DOI: 10.1002/adma.201204738

Identifiers

ORCID **0000-0003-1000-4745**

DATI PERSONALI	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

L'Aquila, 14.04.2022 **Alessandro Stroppa**