

Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Gender

Desired employment/ Occupational field

Work experience

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Dates

Occupation or position held

Main activities and
responsibilities

Name and address of employer

Cucini, Riccardo

21, via Firenze, 53034 Colle di Val d'Elsa (SI)

+39 349 61 00 919

cucini@iom.cnr.it

italian

07/08/1977

male

Research and development

October 2015 —>

Scientist

Operative responsible at SPRINT lab for generation of high harmonics and ultrafast spectroscopy and for time resolved non linear experiments

CNR-IOM - Istituto Officina dei Materiali Strada Statale 14 - km 163,5 in AREA Science Park, 34149 Basovizza, Trieste ITALY Tel. +39 040 3756411 - Fax. +39 040 226767, U.O. SPRINT lab., group coordinator: Prof. Giorgio Rossi, rossi@iom.cnr.it

March 2014-October 2015

Scientist

Beam line scientist on the experimental station "Low Density Matter" with the free electron laser source FERMI@Elettra, working on beamline commissioning and local contact for users experiments

Sincrotrone Trieste S.C.p.A. di interesse nazionale Strada Statale 14 - km 163,5 in AREA Science Park, 34149 Basovizza, Trieste ITALY Tel. +39 040 37581 - Fax. +39 040 9380902, U.O. LDM beamline, group coordinator: Dott. Carlo Callegari, carlo.callegari@elettra.eu

March 2014-September 2014

Research fellow

Research fellow at the Quantum Optics laboratory at the University of Nova Gorica, working at the development and use of a light source based on laser high-order harmonic generation (HHG) in gases

Vipavska 13 SI-5000 Nova Gorica Slovenia, Quantum Optics Group, group coordinator: Prof. Giovanni De Ninno, www.ung.si/en/research/laboratory-of-quantum-optics/, giovanni.deninno@ung.si

March 2009-March 2014

Scientist

Post-doc at TIMER LaserLab for non linear spectroscopy experiments on liquids and complex fluids. Planning, realization, installation and test of the experimental station "elastic and inelastic scattering" with the free electron laser source FERMI@Elettra. Experiments on matter under extreme condition at TIMEX beamline

Sincrotrone Trieste S.C.p.A. di interesse nazionale Strada Statale 14 - km 163,5 in AREA Science Park, 34149 Basovizza, Trieste ITALY Tel. +39 040 37581 - Fax. +39 040 9380902, U.O. Linea di Diffusione Anelastica, group coordinator: Dott. Claudio Masciovecchio, claudio.masciovecchio@elettra.eu

Education and training

Dates	February 2009
Title of qualification awarded	PhD in Material Science and Engineering; title of thesis: "Transport processes in nano-heterogeneous materials by Transient Grating experiments", grade: excellent, tutor: Dr. Renato Torre, co-tutor: Prof. Roberto Righini
Principal subjects/Occupational skills covered	Time-resolved non linear spectroscopy (Transient Grating), pulsed and continuum laser source employment, confined liquids dynamics
Name and type of organization providing education and training	Università degli studi di Firenze, thesis performed at the European Laboratory for non Linear Spectroscopy (LENS), via N.Carrara 1, 50019 Sesto Fiorentino (FI) Tel:+39 055 45 72 517 www.lens.unifi.it, Structured fluids and glasses group, Coordinator: Renato Torre, torre@lens.unifi.it
Dates	July 2005
Title of qualification awarded	Degree in Physics ("vecchio ordinamento"); title of thesis: "Studio dei processi dinamici di liquido nanoconfinato in una matrice porosa mediante esperimenti di reticolo transiente" (Study of dynamical processes of confined liquid in a porous matrix by Transient Grating experiments), grade 104/110, supervisor: Dr. Renato Torre
Principal subjects/Occupational skills covered	State of matter: low temperature physics, quantum electronics, optics, spectroscopic techniques
Name and type of organization providing education and training	Università degli studi di Firenze, thesis performed at the European Laboratory for non Linear Spectroscopy (LENS), via N.Carrara 1, 50019 Sesto Fiorentino (FI)

Teaching activities

Dates	July 2018
Course	2nd NFFA-Europe Summer School
Name and type of organization	NFFA-Europe, Trieste
Dates	Spetember 2015
Course	Warsaw School on Science with FELs
Name and type of organization	University of Warsaw
Dates	September 2015 - November 2015
Course	Introduction to Free electron laser physics and scientific applications
Name and type of organization	Università della Terza Età Via Lazzaretto Vecchio 10, Trieste, http://www.uni3trieste.it
Dates	January 2014
Course	Lesson on Free Electron Laser applications
Name and type of organization	Liceo Scientifico Galileo Galilei, Via Goffredo Mameli 4, Trieste
Dates	March 2012 - June 2012
Course	General Physics practical for the academical course of "Ambient and Natural Science" and "Geology" at the University of Trieste
Name and type of organization	Università degli Studi di Trieste, Piazzale Europa,1 34127 Trieste, Italia, www.units.it
Dates	April 2011
Course	Lesson on molecules movie with free electron laser for the Vaasa International high school, Sweden
Name and type of organization	Elettra Sincrotrone Trieste
Dates	May 2010
Course	School on Synchrotron and Free-Electron-Laser Sources and their Multidisciplinary Applications
Name and type of organization	Elettra Sincrotrone Trieste

Dates
Course

November 2005-July 2008

OPENLAB project: popularization of science for primary and secondary school and teachers

Name and type of organization

Università degli studi di Firenze, Polo Scientifico e Tecnologico, viale delle Idee,26 50019 Sesto Fiorentino (FI), tel:+39 055 5253929,www.openlab.unifi.it

Personal skills and competences

Mother tongue(s)

italian

Other language(s)

English

Self-assessment
European level^(*)

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user

English

^(*) Common European Framework of Reference (CEF) level

Computer skills and competences

Windows+Explorer, Office package, Latex, Origin, Matlab, short account of Labview and SolidWorks

Additional information

military service performed from August 1998 to June 1999

Qualification

Abilitazione Scientifica Nazionale for Associate professor on sector 02/B1 "Fisica Sperimentale della Materia" from 30/03/2018 to 30/03/2024

Scientific Infrastructure responsibilities

Operative responsible for NFFA-SPRINT laboratory for generation of high harmonics with high energy resolution and high repetition rate at IOM-CNR, IOM prot.0016715

Commission component

component of commission for laser system acquisition for IOM-CNR, IOM prot.0003578, date: 16/11/2017-28/11/2017

component of commission for laser system acquisition for IOM-CNR, IOM prot.0000077, date:12/01/2016-04/02/2016

Awards

Winner of the local FAMELAB contest (www.famelab-italy.it) in Trieste (March 2014)
Third place at the italian FAMELAB final (June 2014), winner of the people's choice award

Interview

Newspaper

Il Piccolo (January 2015)

Story planning and interview on Topolino n.3070 (September 2014)

La Nazione (September 2014)

Il Piccolo (June 2014)

Sole24ore (April 2011)

Radio

RadioRai (February 2015)

RadioRai (April 2012)

TV

“Nautilus”, RaiScuola (April 2019)

“MEMEX”, RaiScuola (April 2016)

“Il settimanale”, Rai3 (February 2015)

“L'universo e'..” RTV SLO(December 2014)

RTV SLO (April 2013)

Journal reviewer

Applied Science (ISSN 2076-3417; CODEN: ASPCC7)

Condensed Matter (ISSN 2410-3896)

Photonics (ISSN 2304-6732)

Optics Letters (ISSN 0146-9592)

Journal of Electrical and Electronics Engineering Research (ISSN: 1993-8225)

Journal Editor

Editor for Elettra Highlight 2015

Co-Editor for Elettra Highlight 2014

Experiments in national/international facilities

TiSPiEGA : Time resolved Spin Polarized spectroscopy of laser Excited electrons in GaAs, CNR-IOM, Italy, SPRINT beamline, proposal ID:847, February 2019, Local Contact.

Plasmon-mediated electron injection into cerium oxide from embedded silver nanoparticles, CNR-IOM, Italy, SPRINT beamline, proposal ID:2019-007, January 2019, Local Contact.

Injection properties at the organic/metal interface, CNR-IOM, Italy, SPRINT beamline, proposal ID:881, December 2019, Local Contact.

Time-resolved investigations of Plasmon-mediated hot electron injection from Au NP in Al-doped ZnO films, CNR-IOM, Italy, SPRINT beamline, proposal ID:2019-001, October 2019, Local Contact.

Sub-threshold dynamics of metallic hidden phases in $La_{1-x}Ca_xMnO_3$, Spring-8, Japan, BL19LXU beamline, proposal ID:2019A1560, April 2019, Attendee.

Ultrafast dynamics of metallic hidden phases in manganite thin films, Spring-8, Japan, BL19LXU beamline, proposal ID:2018A1278, June 2018, Attendee.

Core-resonant Coherent Raman Scattering, LCLS, USA, XCS beamline, proposal ID:LR63, April 2018, Attendee.

Lattice-Spin coupling dynamics of the ferroelectric/ferromagnetic $La_{0.7}Sr_{0.3}MnO/BaTiO_3$ interfaces, Spring-8, Japan, BL19LXU beamline, proposal ID:2017A1323, July 2017, Attendee.

The interactions between the peptide bond environment and water molecules studied by UV Resonant Raman scattering on oligo-glycine solutions, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20160351, August 2016, Principal Investigator.

EUV Transient Grating Measurements of Complex Material Responses, Elettra Sincrotrone Trieste, FERMI, DiProl beamline, proposal ID:20139010, July 2016, Attendee.

Doubly resonant energy and q- dependent EUV-optical TG on silicon nitride Si_3N_4 , Elettra Sincrotrone Trieste, FERMI, DiProl beamline, proposal ID:20139060, July 2016, Attendee.

Study of the metallic/insulator character of Sr-doped manganites via time-resolved HAXPES, Spring-8, Japan, BL19LXU beamline, proposal ID:2016A1289, June 2016, Attendee.

Relaxation coupling in highly dipolar liquids, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20155162, May 2016, Attendee.

The effect of cluster environment on the electronic structure of Sulphur-containing amino acids., Elettra Sincrotrone Trieste, Gas Phase beamline, proposal ID:20155259, February 2016, Attendee.

Imaging of ionization dynamics in He nanodroplets, Elettra Sincrotrone Trieste, FERMI, LDM beamline, proposal ID:20134059, June 2015, Attendee.

Non-Dipole Phenomena in Sequential Ionization of Argon, Elettra Sincrotrone Trieste, FERMI, LDM beamline, proposal ID:20134044, March 2015, Attendee.

Coherent control with light from FERMI, Elettra Sincrotrone Trieste, FERMI, LDM beamline, proposal ID:20139064, December 2014, Attendee.

Driving a Fano resonance: Creating stable inner-valence holes and highly aligned outer-valence hole states, Elettra Sincrotrone Trieste, FERMI, LDM beamline, proposal ID:20134013, November 2014, Attendee.

FEL-based coherent anti-Stokes Raman scattering spectroscopy, Elettra Sincrotrone Trieste, FERMI, DiProl beamline, proposal ID:20139063, October 2014, Attendee.

Study of an Isomerization Reaction in Real Time, Elettra Sincrotrone Trieste, FERMI, LDM beamline, proposal ID:20129001, August 2014, Attendee.

FEL-based coherent anti-Stokes Raman scattering spectroscopy, Elettra Sincrotrone Trieste, FERMI, DiProl beamline, proposal ID:20129017, July 2014, Attendee.

Ultrafast dynamic of melting in Si monitored by tracking the L(2,3)-edge shift, Elettra Sincrotrone Trieste, FERMI, TIMEX beamline, proposal ID:20129014, June 2014, Attendee.

Study of the interplay between structural relaxation and dipolar orientational dynamic in a highly polar liquid: acetonitrile., ESRF, ID28 beamline, proposal ID:SC-3723, September 2013, Attendee.

Phonon modes in colloidal suspensions, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20125059, April 2013, Principal Investigator.

Characterization of custom detectors and optics for EUV free electron lasers, Elettra Sincrotrone Trieste, BEAR beamline, proposal ID:20125391, January 2013, Attendee.

Acoustic behavior in concentrated Sulfuric acid, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20115231, March 2012, Principal Investigator.

Acoustic propagation in Magnetorheological fluid, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20105045, June 2011, Principal Investigator.

Acoustic phenomena on water confined in Vycor, Elettra Sincrotrone Trieste, IUVS beamline, proposal ID:20100281, July 2010, Principal Investigator.

Joint INS and IXS study of collective modes on molten RbF, ESRF, ID28 beamline and ILL, BRISP beamline, France, proposal ID:HD-353, May 2009, Attendee.

Partecipation to international Project

Research and Innovation Actions of H2020- INFRAIA-1-2014/2015,NFFA-EUROPE, nanoscience foundries and fine analysis for Europe, Prog N°654360, PI: Giorgio Rossi

Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN),Molecular Electron Dynamics Investigated by Intense Fields and Attoseconds Pulses , grant agreement No 641789, PI: Giuseppe Sansone

ARRS bilateral project Slovenia-Flanders, PI: Giovanni De Ninno

ERC starting grant,TIME-Resolved Spectroscopy of Nanoscale Dynamics in Condensed Matter Physics,(TIMER), ERC-2007-StG, PI: Claudio Masciovecchio

Research Activity

My research activity during the PhD at the European Laboratory for non Linear Spectroscopy (LENS) was devoted to the characterization of acoustic, structural and thermal properties of simple and confined liquids by means of laser-based non linear spectroscopy (see publications **56, 59, 60, 61, 62, 63, 64, 65, 66**). After this period, I moved to the Elettra synchrotron Trieste, where I was appointed responsible for the TIMER Laser lab. My main research activity was focused to the extension of a laser-based four wave mixing technique towards the extreme ultraviolet region, developing new optical setups for applying such a technique to free electron lasers (see **57, 58**), but also extending the actual limits with classical lasers, showing applications to the electronic and acoustic behaviour of liquids and solids (see **37**). Following these results, I participated to the planning, the construction, the test and, finally, to the first experiments of a new beamline based on the previous technique (see **22, 23, 26, 30, 33, 38, 44**). The collaboration is also continued in the following years (see **4, 7, 9, 13, 15, 19**). I made experiments on warm dense matter based on lasers and free electron lasers (see **11, 24, 34, 36, 39, 52, 54, 55**). These experiments were also used for characterization of the FERMI parameters and test its current performances (**3, 21, 27, 28, 42, 48, 51, 53**). I worked on experiments on liquids with impulsive stimulated Raman scattering (see **43**) and continuum Raman scattering (**29, 31, 45, 47, 49, 50**). Moreover, I worked in synergy with the electronic workshop for the characterization of new electronic devices based on quantum wells (see **32, 35, 41, 46**).

After this experience, I moved to the University of Nova Gorica, as responsible of the new high harmonic generation laser based laboratory for the studies of properties of light and application to the gas phase (see **20**). At the same time, I was also appointed as beam line scientist for the Low Density Matter beamline on a research program devoted to electron photo-emission spectroscopy, ion time of flight and mass spectroscopy on He nanodroplets and sequential ionization of noble gases (see **1, 6, 8, 10, 14, 16, 17, 18**). I participated to the first and highly challenging experiments on coherent control of light from free electron laser radiation (see **25**).

Presently, I am the scientific responsible of the SPRINT lab at CNR-IOM for generation of high harmonics, ultrafast spectroscopy and for time resolved non linear experiments (see **2, 5**). The research activities range from time-resolved photo-emission spectroscopy (see **12**), to spin spectroscopy and to generation and detection of spin waves by using four wave mixing techniques on magnetic materials.

Publications

- 1 *Autoionization dynamics of helium nanodroplets resonantly excited by intense XUV laser pulses* Y. Ovcharenko *et al.*, *New Jour. Phys.* ,**22**, 083043 (2020)
- 2 *Coherent narrowband light source for ultrafast photoelectron spectroscopy in the 17-31 eV photon energy range* R. Cucini *et al.*, *Struct. Dyn.* ,**7**, 014303 (2020)
- 3 *Free electron laser polarization control with interfering crossed polarized fields* E. Ferrari *et al.*, *Phys. Rev. Acc. Beam*,**22**, 080701 (2019)
- 4 *Nanoscale transient gratings excited and probed by extreme ultraviolet femtosecond pulses* F. Bencivenga *et al.*, *Sci. Adv.*,**5**, eaaw5805 (2019)
- 5 *Transient quantum isolation and critical behavior in the magnetization dynamics of half-metallic manganites* T. Pincelli *et al.*, *Phys. Rev. B.*,**100**, 045118 (2019)
- 6 *Deep neural networks for classifying complex features in diffraction images* J. Zimmermann *et al.*, *Phys. Rev. E.*,**99**, 063309 (2019)
- 7 *Nonlinear XUV-optical transient grating spectroscopy at the Si L_{2,3} edge* R. Bohinc *et al.*, *App. Phys. Lett.*,**114**, 181101 (2019)
- 8 *Three-Dimensional Shapes of Spinning Helium Nanodroplets* B. Langbehn *et al.*, *Phys. Rev. Lett.*,**121**, 255301 (2018)
- 9 *Generation of coherent phonons by coherent extreme ultraviolet radiation in a transient grating experiment* A. A. Maznev *et al.*, *App. Phys. Lett.*,**113**, 221905 (2018)
- 10 *Symmetry breakdown of electron emission in extreme ultraviolet photoionization of argon* M. Ilchen *et al.*, *Nature Comm.*,**9**, 4659 (2018)
- 11 *Extreme ultraviolet probing of nonequilibrium dynamics in high energy density germanium* E. Principi, E. Giangrisostomi, R. Mincigrucci, M. Beye, G. Kurdi, R. Cucini, A. Gessini, F. Bencivenga, C. Masciovecchio, *Phys. Rev. B.*, **97**, 174107 (2018)
- 12 *A novel high order harmonic source for time- and angle- resolved photoemission experiments* P. Miotti, F. Cilento, R. Cucini, *et al.*, *Optics InfoBase Conference Papers*, Part F85-EUVXRAY 2018 (2018)
- 13 *Advances in instrumentation for FEL-based four-wave-mixing experiments* R. Mincigrucci *et al.*, *NIMA*, DOI: 10.1016/j.nima.2018.03.051 (2018)
- 14 *Acetylacetone photodynamics at a seeded free-electron laser* R.J. Squibb *et al.*, *Nat. Comm.*,**9**, 02478 (2018)
- 15 *Generation of acoustic waves by an extreme ultra violet free electron laser in a transient grating experiment.* F. Bencivenga *et al.*, *IEEE Int. Ultras. Symp.*, 8092887 (2017)
- 16 *Optical setup for two-colour experiments at the low density matter beamline of FERMI* P. Finetti *et al.*, *Journal of Optics*,**19**, 114010 (2017)
- 17 *Polarization Characterization of Soft X-Ray Radiation at FERMI FEL-2.* E. Roussel *et al.*, *Photonics*,**4**, 29 (2017)
- 18 *Pulse duration of seeded free-electron lasers.* P. Finetti *et al.*, *Phys. Rev. X*,**7**, 021043 (2017)
- 19 *Four-wave-mixing experiments and beyond: The TIMER/mini-TIMER setups at FERMI.* L. Foglia *et al.*, *SPIE*,**10237**, 102370C (2017)
- 20 *Tunable orbital angular momentum in high-harmonic generation.* D. Gauthier *et al.*, *Nature Comm.*,**8**, 14971 (2017)
- 21 *The FERMI seeded-FEL facility: Status and perspectives.* L. Badano *et al.*, *AIP Conf. Proc.*,**1741**, 020006 (2016)
- 22 *Non-linear optics with coherent free electron lasers.* F. Bencivenga, Flavio Capotondi, R. Mincigrucci, R. Cucini *et al.*, *Physica Scripta*, **T169**, 014003 (2016)

- 23 *Four-wave-mixing experiments with seeded free electron lasers.* F. Bencivenga, A. Calvi, Flavio Capotondi, R. Cucini *et al.*, *Faraday Discuss.*, **194**, 283 (2016)
- 24 *Free electron laser-driven ultrafast rearrangement of the electronic structure in Ti.* E. Principi, E. Giangrisostomi, R. Cucini, F. Bencivenga, A. Battistoni, A. Gessini, R. Mincigrucchi, M. Saito, S. Di Fonzo, F. D'Amico, A. Di Cicco, R. Gunnella, A. Filippini, A. Giglia, S. Nannarone, C. Masciovecchio, *Structural Dynamics*, **3**, 023604 (2016)
- 25 *Coherent control with a short-wavelength free-electron laser.* K. C. Prince, E. Allaria, C. Callegari, R. Cucini, *et al.*, *Nature Photonics*, **10**, 176 (2016)
- 26 *Experimental setups for FEL-based four-wave mixing experiments at FERMI.* F. Bencivenga, *et al.*, *J. Synch. Rad.*, **23**, 132 (2016)
- 27 *FERMI upgrade plans.* A. Fabris, *et al*, IPAC2016, (2016)
- 28 *The FERMI seeded FEL facility: operational experience and future perspectives.* M. Svandrlik, *et al*, IPAC2015, (2015)
- 29 *Resonance Raman Spectroscopy with Chemical State Selectivity on Histidine and Acetamide Using Synchrotron Radiation.* M. Saito, F. D'Amico, G. Camisasca, F. Bencivenga, R. Cucini, A. Gessini, E. Principi, T. Ogura, C. Masciovecchio, *Bull. Chem. Soc. J.*, **88**, 591, (2015)
- 30 *EIS: the scattering beamline at FERMI.* C. Masciovecchio, A. Battistoni, E. Giangrisostomi, F. Bencivenga, E. Principi, R. Mincigrucchi, R. Cucini, A. Gessini, *et al.*, *J. Synch. Rad.*, **22**, 553 (2015)
- 31 *Slow-to-fast transition of hydrogen bonds dynamics in the acetamide hydration shell formation.* F. D'Amico, B. Rossi, G. Camisasca, F. Bencivenga, A. Gessini, E. Principi, R. Cucini, C. Masciovecchio, *Phys. Chem. Chem. Phys.*, **17**, 10987 (2015)
- 32 *Fast, multi-wavelength, efficiency-enhanced pixelated devices based on InGaAs/InAlAs quantum-well.* T. Ganbold, M. Antonelli, G. Biasiol, R. Cucini, G. Cautero, R.H. Menk, *Jour. of Instrum.*, **10**, C03009 (2015)
- 33 *Four wave mixing experiments with extreme ultraviolet transient gratings.* F. Bencivenga, R. Cucini, F. Capotondi, A. Battistoni, R. Mincigrucchi, E. Giangrisostomi, A. Gessini, M. Manfredda, I. Nikolov, E. Pedersoli, E. Principi, C. Svetina, P. Parisse, F. Casolari, M. Danailov, M. Kiskinova, C. Masciovecchio, *Nature*, **520**, 205 (2015)
- 34 *Matter under extreme conditions probed by a seeded free-electron-laser.* F. Bencivenga, E. Principi, E. Giangrisostomi, A. Battistoni, R. Cucini *et al*, *AIP Conf. Proc.*, **1673**, 020001 (2015)
- 35 *Position-sensitive multi-wavelength photon detectors based on epitaxial InGaAs/InAlAs quantum wells.* T. Ganbold, M. Antonelli, G. Cautero, R.H. Menk, R. Cucini, G. Biasiol, *J. Cryst. Growth*, **425**, 341, (2015)
- 36 *Liquid Carbon Reflectivity at 19 nm.* R. Mincigrucchi, E. Giangrisostomi, E. Principi, A. Battistoni, F. Bencivenga, R. Cucini, A. Gessini, M. G. Izzo, C. Masciovecchio, *Photonics*, **2**, 50 (2015)
- 37 *Toward the Extreme Ultra Violet Four Wave Mixing Experiments: From Table Top Lasers to Fourth Generation Light Sources.* R. Cucini, A. Battistoni, F. Bencivenga, A. Gessini, R. Mincigrucchi, E. Giangrisostomi, E. Principi, F. Capotondi, E. Pedersoli, M. Manfredda, M. Kiskinova, C. Masciovecchio, *Photonics*, **2**, 57 (2015)
- 38 *FEL-based transient grating spectroscopy.* F. Bencivenga, R. Cucini, F. Capotondi, A. Battistoni, R. Mincigrucchi, E. Giangrisostomi, A. Gessini, M. Manfredda, I. Nikolov, E. Pedersoli, E. Principi, C. Svetina, P. Parisse, F. Casolari, M. Danailov, M. Kiskinova, C. Masciovecchio, *SPIE*, **9512**, 951212 (2015)

- 39 *Reflectivity enhancement in titanium by ultrafast XUV irradiation.* F. Bencivenga, E. Principi, E. Giangrisostomi, R. Cucini, A. Battistoni, F. D'Amico, A. Di Cicco, S. Di Fonzo, A. Filipponi, A. Gessini, R. Gunnella, M. Marsi, L. Properzi, M. Saito, C. Masciovecchio, *Scient. Rep.*, **4**, 4952 (2014)
- 40 *IRIDE: Interdisciplinary research infrastructure based on dual electron linacs and lasers.* M Ferrario, *et al*, *NIMA*, **740**, 138 (2014)
- 41 *Position-sensitive photon detectors using epitaxial InGaAs/InAlAs quantum wells.* T. Ganbold, M. Antonelli, G. Biasiol, G. Cautero, H. Jark, D.M. Eichert, R. Cucini, R.H. Menk, *Jour. of Instrum.*, **9**, C12043 (2014)
- 42 *FERMI status report.* M. Svandrlík, *et al*, *IPAC2014*, 2885 (2014)
- 43 *Determination of dynamical parameters in liquids by homodyne transient grating spectroscopy at large angles.* R. Cucini, A. Battistoni, A. Gessini, F. Bencivenga, E. Principi, M. Saito, F. D'Amico, R. Sergo, C. Masciovecchio, *Opt. Lett.*, **39**, 5110 (2014)
- 44 *Wave-mixing experiments with multi-colour seeded FEL pulses.* F. Bencivenga, A. Battistoni, F. Capotondi, R. Cucini, *et al*, *Proc. FEL2014*, 985 (2014)
- 45 *Spatial correlation between chemical and topological defects in vitreous silica: UV-resonance Raman study.* M. Saito, F. D'Amico, F. Bencivenga, R. Cucini, A. Gessini, E. Principi, C. Masciovecchio, *J. Chem. Phys.*, **140**, 244505 (2014)
- 46 *Fast, multi-band photon detectors based on Quantum Well devices for beam-monitoring in new generation light sources.* T. Gambold, *et al*, *Proc. FEL2014*, 600 (2014)
- 47 *Thermodynamic hydration shell behavior of glycine.* F. D'Amico, F. Bencivenga, G. Camisasca, A. Gessini, E. Principi, R. Cucini, C. Masciovecchio, *J. Chem. Phys.*, **139**, 015101 (2013)
- 48 *FERMI status report.* M. Svandrlík, *et al*, *Proc. FEL2014*, 564 (2014)
- 49 *UV resonant Raman scattering facility at Elettra.* F. D'Amico, M. Saito, F. Bencivenga, M. Marsi, A. Gessini, G. Camisasca, E. Principi, R. Cucini, S. Di Fonzo, A. Battistoni, E. Giangrisostomi, C. Masciovecchio, *NIMA* **703**, 33 (2013)
- 50 *Investigation of acetic acid hydration shell formation through raman spectra line-shape analysis.* F. D'Amico, F. Bencivenga, A. Gessini, E. Principi, R. Cucini, C. Masciovecchio, *J. Chem. Phys.*, **116**, 13219 (2012)
- 51 *Tunability experiments at the FERMI@Elettra free-electron laser.* E. Allaria *et al.*, *New J. Phys.* **14**, 113009 (2012)
- 52 *Determination of the Ion Temperature in a Stainless Steel Slab Exposed to Intense Ultrashort Laser Pulses.* E. Principi, R. Cucini, A. Filipponi, A. Gessini, F. Bencivenga, F. D'Amico, A. Di Cicco, C. Masciovecchio, *Phys. Rev. Lett.*, **109**, 025005 (2012)
- 53 *Commissioning and initial operation of FERMI@ELETTRA.* S. Di Mitri, *et al*, *IPAC2011*, 918 (2011)
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Citation Overview

Scopus, h-index: 14, total citation: 838

Advisory Board Member

DyProSo2019, International Symposium on Dynamical Properties of Solids

International conferences

DyProSo2019, Ferrara, September 2019, **speaker**

EUROMAT2019, Stockholm, September 2019, **speaker**

VUVX2019, San Francisco, July 2019, **speaker**

EFSL workshop, Rome, November 2018, **invited speaker**

Materials2016, Catania, December 2016, **talk**

FisMat2015, Palermo, September 2015, **invited speaker/chairman**

SPIE Optics and Photonics, San Diego, August 2015, **talk**

SPIE Optics and Optoelectronics, Prague, April 2015, **talk**

2nd Joint AIC-SILS conference, Firenze, September 2014, **talk**

Fotonica2014, Napoli, May 2014, **talk**

Frontiers in Water Biophysics, Perugia, September 2012, **talk**

Workshop on Soft Matter, Parma, February 2011, **talk**
2nd International Symposium on Laser Ultrasonics, Bordeaux, July 2010, **talk**
EuroFEL Workshop on Photon Beamlines & Diagnostics, Hamburg, June 2010, **invited speaker**
2nd IRUVX-PP Annual Meeting, Berlin, March 2010, **talk**
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15th International Conference on Photoacoustic and Photothermal Phenomena, Leuven, July 2009, **talk**
Acoustics'08, Parigi, July 2008, **talk**
XI International Workshop on Complex Systems, Andalo, March 2008, **poster session**
Water interfaces in Physics, Chemistry and Biology: a multi disciplinary approach, Obergurgl, December 2007, **talk**
Phonons2007: 12th International Conference on Phonon Scattering in Condensed Matter, Parigi, July 2007, **poster session**
IV Workshop on Non Equilibrium Phenomena in Supercooled Fluids, Glasses and Amorphous Materials, Pisa, September 2006, **poster session**
Third International Workshop on Dynamics in confinement, Grenoble, March 2006, poster session
INFMeeting2005, Genova, June 2005, **poster session**

Educational conferences

Fotografia e Cinema nel mondo degli atomi, Crema, February 2017, **talk**
Idee e tecnologie fra presente e futuro, Milano, October 2015, **talk**
Tecniche spettroscopiche avanzate per lo studio dell'acqua, Perugia, May 2015, **talk**
Free Electron Laser: filmare il moto delle molecole, Trieste, November 2010, **talk**

