

Nome Cognome	
Dario Giove	
Company	Passport photo
INFN	
Personal	
Education	
degree in physics with laude on 1982 at University of Milan	
Experience	
Since year 1985	INFN - Milan
	<p>1982-1990 He worked at the design and construction of the Superconducting Cyclotron, with the responsibility of the Computer Control from 1985 up to the transfer of the machine to Catania.</p> <p>1988-1999 He worked on different applications of different technologies in the field of beam diagnostics for heavy ion accelerators and for electron machines (mainly developing OTR based tools)</p> <p>1990-1994 R&D for a FEL project to be developed at the INFN _ Milano (ELFA project) 1994-2007 Collaboration at the TESLA Project and at the TRIUMF laboratory for the development of diagnostic devices able to operate at cryogenic temperatures</p> <p>1998- 2006 He worked at the development of two room temperature compact linacs to be used as boosters for a medical cyclotron. The activities were carried out at CERN, at Milan and Napoli INFN Laboratories. He has been responsible for RF cells design, mechanical construction and welding, cooling schemes, RF measurements and design and operation of high power RF lines.</p> <p>2009-now He has been involved in different experiments on development of detectors for charged particle and radiation. In the period from 2015 to 2020 he has the responsibility of an experiment funded from INFN with 1 MEuros for the development of SiC detectors to be used in nuclear physics experiments (SICILIA).</p> <p>2022-2026 He is the PI of a INFN call for the construction of a high brightness electron source.</p> <p>2023 He is the WP leader of the RF activities related to the Muon Collider European Call.</p> <p>Since 2000 he has been Professor of Electronics and Applied Acoustics at the University of Milan.</p> <p>Giove Dario is author or coauthor of more than 100 scientific papers on international scientific journals and conferences.</p>

Name	MARCHI, TOMMASO
Address (I)	
E-mail	
Citizenship	
Birth date	
ResearcherID	

1. WORK EXPERIENCE

Since Nov 2017	Researcher at INFN Legnaro National Laboratories
OCT 2015 – Oct 2017	Post-doc at IKS KU Leuven (Belgium). European Commission, Marie Skłodowska-Curie Individual Fellowship (IF) MagicTin project [661777]. <i>Study of nuclear shell evolution in the neutron rich Sn isotopes with an ACTIVE TARGET. Development of an ACTIVE target to be used at the SPES facility. (http://cordis.europa.eu/search/result_en?q=MagicTin)</i> FWO post-doctoral fellow (Oct 2015 – Oct 2018).
JAN 2014 – OCT 2015	INFN Post doc <u>Senior Research Fellowship</u>, Legnaro National Laboratories. (Assegno di ricerca senior, bando INFN n. 15793/13), <i>Neutron innovative detectors with applications to the SPES project.</i>
JAN 2013 – Dec 2013	INFN Post doc <u>Research Fellowship</u>, Legnaro National Laboratories. (Assegno di ricerca, bando INFN n. 15284/12) <i>Integration of the acquisition system and data analysis cores of GARFIELD apparatus to perform international activities at TANDEM-ALPI accelerators.</i>

2. EDUCATION

2010 - 2013	University of Padua, Physics department. Phd in Physics (18/04/2013) Thesis Title: "Nuclear structure evolution far from stability: study of ^{74}Ni collectivity by Coulomb excitation" Supervisor: prof. G. Montagnoli (Padua University)
2007 - 2009	Bologna University, Physics Department. Five Year Diploma in Physics (20/03/2009) Final grade: 110/110 cum laude Thesis Title: "Neutron detection in nuclear physics experiments. Study and characterization of new scintillating materials". Supervisor: prof. Mauro Bruno (Bologna University)
2003 - 2006	Bologna University, Physics Department. Three Year Diploma in Physics. (15/12/2006) Final grade: 110/110 cum laude Thesis Title: "Scintillation Detectors for Nuclear Physics Experiments" Supervisor: Prof. Mauro Bruno (Bologna University)

3. RESEARCH ACTIVITY

AIPAC8Be

Spokesperson of an approved experiment at AN2000 facility (LNL)

for the measurement of electron-positron angular correlations in 8Be decay. *This experiment aims at providing an independent test of the results published in [Phys Rev Lett 116 042501 (2016)] where the observation of a new neutral particle is claimed (and linked to the existence of unknown forces in Nature).*

ACTAR Collaboration

-Coordinator of WP 4 (ancillary detectors) for the “Gas-filled Detectors and Systems” ENSAR2 GDS network.

-Co-spokesperson of the LOI for SPES: Shell structure in the vicinity of ^{132}Sn with an active target.

-Spokesperson of a Letter Of Intent to the GANIL PAC for testing the ACTAR demonstrator with heavy ion beams (^{136}Xe (d,p))

-P.I. of the ATS (Active Target for SPES) project for the SIR2014 call.

The project was admitted to the second stage of selection getting an evaluation of 29/30.

-International Reference for ATS at SPES

TAPE STATION for SPES

Coordinator of the TS working group within the WPB01 (Scientific Support) of the SPES project.

The activity consists in the design and construction of a slow tape station to be used for beam diagnostic for the SPES facility.

Duties:

- **Project coordination and design of the global setup.**
- **Management of the collaboration between LNL, iThemba lab (South Africa) and IPN Orsay (France)**
- Detectors and acquisition system setup.

NUCLEAR STRUCTURE

Evolution of nuclear shells far from stability. In beam gamma-ray spectroscopy with radioactive ion beams at fragmentation facilities.

Duties:

-In charge for the analysis of ^{74}Ni Coulomb excitation experiment (e09031 – MSU) – **PhD thesis.**

-In charge for the analysis of $^{68,70,72}\text{Ni}$ inelastic proton scattering experiment (e12016 – MSU)

-Co-spokesperson of 2013 Eurica campaign at RIKEN (“Structural Changes between $N=40$ and $N=50$ next to Ni isotopes: a joint proposal”)

REACTION DYNAMICS

Member of the NUCLEX-FAZIA Collaboration (INFN CSN3)

that studies reaction mechanisms at low and intermediate energies and develops state of the art arrays for charged particles detection.

My research activity focuses on fast processes in fusion-evaporation reactions and their connection with clustering effects. On this topic I have recently submitted a review invited article for a special issue of the International Journal of Modern Physics E (IJMP) dedicated to a discussion of the current

status and new developments in nuclear correlations and nuclear cluster physics.

Duties:

-Person in charge for the GARFIELD apparatus (2010-2015):

1. TPC detector maintenance and upgrade
2. acquisition and ancillary software maintenance and development
3. experiment preparation
4. data storage and reduction

-Spokesperson of the LOI submitted to the SPES SAC for studying pre-equilibrium emission with exotic nuclei (2014)

-Spokesperson of the ACLUST2 experiment to study $^{16}\text{O}+^{30}\text{Si}$, $^{18}\text{O}+^{28}\text{Si}$, $^{19}\text{F}+^{27}\text{Al}$ reactions at 7 A MeV. The data collected are now subject of a PhD thesis at Padua University.

-Analysis of ACLUST experiment ($^{16}\text{O}+^{65}\text{Cu}$, $^{19}\text{F}+^{62}\text{Ni}$ @ 16 MeV) studying light particles pre-equilibrium emission and clustering in medium mass systems.

-Developer of the digital acquisition system for the RIPEN apparatus (24 neutron detectors +2 corset arms) based on commercial digitizing boards.

-Developer of one on-line data monitor and shapes processor for the FAZIA Demonstrator.

-Developer of the FAZIA electronic logbook.

2012 - 2013

ASTRO25MG Co-spokesperson

Neutron emission cross section measurement for astrophysical purpose:

$^{25}\text{Mg}(\alpha,n)^{28}\text{Si}$ study at stellar energies with the CN accelerator at LNL. [29]

Duties:

-Implementation of the complete digital acquisition system and data monitor (10 neutron detectors +2 silicon detectors+ 2 LaBr₃ scintillators)

-Data presorting – parallel software for off line pulse shape analysis.

2011 - 2012

BETABEAMS

Neutron emission cross section measurement for the EuroNu collaboration:

Reaction studied: $^6\text{Li}(^3\text{He},n)^8\text{B}$. **Duties:**

-Implementation of the digital acquisition system and data monitor (8 neutron detectors + 2 silicon detectors)

-Data presorting – off line pulse shape analysis.

2008-2016

ORIONE – HYDE Collaboration (INFN CSN5)

Development of new neutron detectors.

Development and characterization of new scintillating materials based on polysiloxane siliconic rubbers. Light collection using PMT, SiPM and APD photodetectors. Coupling of the scintillating material with 3D silicon detectors. **Duties:**

-Light yield and detector response measurement with radioactive sources. - Material characterization using IBA techniques.

-Study of the light output timing properties for neutron/gamma pulse shape discrimination purposes.

-In charge of several neutron response measurement using radioactive sources and beam-induced neutron fluxes. Co-Spokesperson and Spokesperson of two experiments at the CN facility LNL (2015,2016)

4. COORDINATION OF SCIENTIFIC ACTIVITIES / RESPONSIBILITIES

2023 - 2022 - 2020 - 2017 - 2023	Project Manager of the SPES project at LNL. Local coordinator for the EUROLABS project (WP2 -TNA). Responsible of the User Service at Legnaro National Laboratories. Spokesperson of the NUCLEX Collaboration INFN – CSN3
2018 - 2022	Member of the User Board of the Laboratori Nazionali del Sud http://www.lnl.infn.it/index.php/it/usergrouphome
2017	Co-chair of the first GDS topical meeting (GDS-ENSAR2) https://agenda.infn.it/conferenceDisplay.py?confId=12079
2016	Member of the Organizing Committee of the: “V Seminarion Nazionale Rivelatori Innovativi” https://agenda.infn.it/conferenceDisplay.py?confId=11097
2015/2016	Organizer of two BriX workshops and editor of the BriX wiki page. (BriX is the Belgian Network for exotic nuclei) https://iks32.fys.kuleuven.be/wiki/brix/index.php5/Main_Page https://iks32.fys.kuleuven.be/indico/event/40/
2016 - 2019	Member of the Legnaro National Laboratories User Board http://www.lnl.infn.it/index.php/it/usergrouphome
2014	ENSAR2 – Network activity: GDS. Coordinator of WP4 (ancillary detectors) http://igfae.usc.es/gds/
2014	Promoter and organizer of the INFN course on Digital Electronics at LNL http://www.lnl.infn.it/~garfweb/e_digit/
2013	Coordinator of the TAPE station for SPES working group within WP B.01 (scientific support).
2012	Spokesperson and co-spokesperson of experiments at LNL TANDEM-ALPI, LNL CN, GANIL and RIKEN facilities.

5. SELECTION ACTIVITIES

2022 - 2023	Member of the selection committee at LNL for fellowships and post-doctoral contracts
2021-2022	Member of the selection committee for INFN technical and administrative positions (LNL, GE)
2021	Member of the selection panel for the PhD school at the University of Ferrara

Legnaro (Pd), Feb 23rd 2023

Tommaso Marchi

Breve Curriculum Vitae Chiara Vignoli

Formazione

1997 Dottorato di Ricerca in Fisica, Università degli Studi di Pavia
 1993 Borsa di studio INFN
 1993 Laurea in Fisica, Università degli Studi di Milano

Esperienza professionale

Date	02/01/1998 – presente
Datore di lavoro	Istituto Nazionale di Fisica Nucleare (INFN)
Sede attuale	Laboratori Nazionali del Gran Sasso (LNGS)
Attuale posizione ricoperta	Dirigente Tecnologo – Criogenia e Alto Vuoto
Principali attività e competenze	<p>Coordinamento scientifico, tecnico ed economico di esperimenti, progetti e apparati complessi</p> <p>Esperimenti per la ricerca di eventi rari</p> <p>Rivelatori criogenici, impianti criogenici e di purificazione di gas nobili allo stato liquido</p> <p>Rivelazione di luce di scintillazione di liquidi criogenici</p> <p>Laboratori sotterranei, infrastrutture tecnologiche e sicurezza</p>
Partecipazione ad Esperimenti	<p>2019- GERDA, LEGEND-200, LEGEND-1000</p> <p>2015- SABRE</p> <p>2014- SBN Program @ FNAL, Neutrino Platform e WA104 @ CERN</p> <p>2013- LBNE/DUNE</p> <p>1994- ICARUS</p> <p>1999-2011 WArP</p> <p>1992-1993 MI-BETA</p>
Principali responsabilità nell'attività di ricerca e tecnologica svolta	<p>2021- Responsabile WBS "Host Lab Infrastructure", "Water Tank" e "System Assembly and Commissioning" per l'esperimento LEGEND-1000 @ LNGS</p> <p>2015-2021 Responsabile Nazionale INFN Esperimento SABRE ai LNGS</p> <p>2015- Technical Coordinator, GLIMOS, RAE Collaborazione Internazionale SABRE NORTH</p> <p>2015- Responsabile Locale Esperimento SABRE ai LNGS, gestione risorse umane/economiche</p> <p>2015- Responsabile WA-104 al CERN e dei fondi del Team Account</p> <p>2010- Responsabile Locale Esperimento ICARUS ai LNGS, gestione risorse umane/economiche</p> <p>2005-2015 Responsabile Installazione, Commissioning, Run, Decommissioning ICARUS ai LNGS</p> <p>2012-2013 Responsabile Gruppo Criogenico LNGS</p> <p>2005-2011 Site Manager, GLIMOS, RAE esperimento WArP ai LNGS</p> <p>2001-2006 Coordinamento degli impianti tecnologici del Capannone INFN di Pavia finalizzato alla costruzione del rivelatore ICARUS T600, all'esecuzione del test criogenico del Modulo T600 e al montaggio delle camere per la rivelazione di muoni di ATLAS</p> <p>2000-2002 Responsabile Gruppo di Lavoro sul rivelatore luce di scintillazione del LAr di ICARUS</p>
Altri incarichi e responsabilità INFN	<p>2021- Responsabile Locale LNGS di attività CC3M (Lab2Go, Art&Science)</p> <p>2010- Membro della Commissione Nazionale Formazione INFN</p> <p>2017- Referente Locale per il Trasferimento Tecnologico INFN ai LNGS</p> <p>Responsabile di svariate unità di personale borsista, assegnista, tecnologo/ricercatore TD INFN</p> <p>Svariati incarichi RUP, commissioni di gara, commissioni concorso</p>
Pubblicazioni	Autrice di più di 100 pubblicazioni, di cui la maggior parte su riviste internazionali con referaggio, citabili con h-index maggiore di 45, secondo la piattaforma INSPIRES-HEP

Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).

L'Aquila, 16 febbraio 2024

Chiara Vignoli