

PERSONAL INFORMATION Jun Fujii

 S.S.14 Km163,5 in AREA Science Park Basovizza, 34149, Trieste, Italy



Sex | Date of birth | Nationality

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input checked="" type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

from Dic. 2008 to today

Permanent Level III Technologist

Istituto Officina dei Materiali del CNR (CNR - IOM), Trieste (Italy)

- One of the main scientific interest is to study electronic and geometrical structures of surfaces and interfaces by means of photoelectron spectroscopy using synchrotron radiation, STM and STS. The electronic and geometrical structures of magnetic materials are of particular interest.
- Another main interest is in developments, upgrades and installing of the apparatuses for keeping the equipments of our laboratory state of the arts, in order to carry out the investigation of interest.

Business or sector: Research

from Jul. 2003 to Dic. 2008

Tenure Track Researcher

Istituto Officina dei Materiali del CNR (CNR - IOM), Trieste (Italy)

Business or sector: Research

from Jul. 2001 to Jul. 2003

Postdoctoral fellow

Elettra, Sincrotrone Trieste S.C.p.A. (Italy)

Business or sector: Research

from Apr. 1994 to Jun. 2001

Research Associate

Gakushuin University, Tokyo (Japan)

Business or sector: Research

EDUCATION AND TRAINING

from Apr. 1991 to Mar. 1994

PhD Degree in Science (Physics)

EQF level 8

University of Tsukuba (Japan)

- Doctoral thesis title : “Electronic Structures of Ferromagnetic Ni studies by Spin Resolved Photoelectron Spectroscopy”

Mar. 1991 **Master Degree in Physics** EQF level 7
 University of Tsukuba (Japan)

Mar. 1989 **Bachelor Degree in Physics** EQF level 6
 Shinshu University (Japan)

PERSONAL SKILLS

Mother tongue(s) Japanese

Other language(s) English, proficiency Level: C1, Italian, proficiency Level: B2

Job-related skills

- Knowledge of atomic physics, in particular in atomic cooling and trapping techniques and of coherent manipulation and control of atomic samples and of their internal and external degrees of freedom with electromagnetic radiation. Knowledge of high-precision spectroscopy and optical clock techniques.
- Knowledge of analog and digital quantum simulation techniques and schemes with neutral atoms, in particular two-electron atomic species.
- Knowledge of linear and gaussian optics and of non-linear optics techniques.
- Knowledge of solid state physics and of strongly interacting systems.
- Experience in the design and realization of ultra-high vacuum setups and laser systems for the production trapping and manipulation of ultracold and degenerate atomic gases acquired by contributing to the design of several experimental setups (degenerate Ytterbium gases, Cadmium atomic clock, Strontium Rydberg atoms in optical tweezers).
- Experience in the design and construction of frequency doubled laser sources with high spectral purity and ultranarrow linewidth. Knowledge and experience in the employment of high-finesse ultrastable reference optical cavities and optical frequency comb for laser frequency stabilization.
- Knowledge of analog and digital electronics, in particular of high-performance servo controllers for laser frequency stabilization. Experience on the design and realization of custom electronics.

Digital skills

- Knowledge of the Mathematica programming suite, of the data analysis software Origin.
- Knowledge of elements of C++ and Phyton programming
- Basic knowledge of CAD design programs (e.g. Solid Works or the online Onshape software)
- Knowledge of the Latex environment for scientific written production and of the Microsoft Office suite and the Inkscape vectorial drawing program.

ADDITIONAL INFORMATION

Technical reports *Registered technical reports*

1. "Upgrade of APE-HE undulator" J. Fujii, 215629/2023
2. "Extension of energy range of APE-LE monochromator" J. Fujii, 217590/2023
3. "Design and characterization of APE-TX undulator" J. Fujii, 215617/2023
4. "Upgrade Sample Preparation chamber and low temperature STM" J. Fujii, 215613/2023
5. "Design of capillary mirror lens for micro focus ARPES at APE-LE beamline" J. Fujii, 215625/2023
6. "New VLS VGD grating for APE-HE" J. Fujii, 0001994-2020
7. "VLEED target", J. Fujii, 0001997-2020
8. "New beam masks for APE-HE 1", J. Fujii, 0001998-2020
9. "Zone plate at APE-HE beamline", J. Fujii 0001996-2020
10. "In-situ cleaning of optics at APE beamline", J. Fujii, 0002044-2020

Participations in tender
commissions

1. Commissione giudicatrice per la gara "Spettrometro per la fotoemissione" 226708/2023
2. Commissione giudicatrice per la gara "Sistema di liquefazione di elio da laboratorio" 1687/2020
3. Commissione tecnica per la gara "Reticolo di diffrazione VLS-VGD per applicazioni di luci di sincrotrone" 3322/2013
4. Commissione giudicatrice per la gara "Analizzatore di elettroni emisferico e sistema di lenti elettroniche con detector e senza target per analisi 3D dello spin dei fotoelettroni" 2418/2013