


PERSONAL INFORMATION

Pierluigi Bruzzone



 Hintergasse 7, CH-5213 Villnachern, Switzerland

 +41 56 2840234  +41 79 6390510

 pierluigi.bruzzone@psi.ch

Sex Male | Date of birth 09/11/1955 | Nationality Swiss / Italian

JOB APPLIED FOR

Expert for the Technical Advisory Panel of Fusion for Energy

WORK EXPERIENCE

2001 – to present

Head of the Superconductivity Section

Ecole Polytechnique Fédérale de Lausanne - Swiss Plasma Center, Villigen PSI, Switzerland

- Leader of the team (20 people), reporting to the SPC Director. Responsible for the organization of the section activities, including the operation of the SULTAN, the test of the ITER conductors and other R&D projects, including DEMO and CERN, including HTS projects. Negotiation of collaboration contracts with European and Overseas agencies/institutes. Tutoring of PhD students and post-docs. Teaching at doctoral and summer schools. Redaction of reports, review articles and other publications. Consultant in the field of superconducting magnet technology, member of review committees.

University, Research, Quality Control

August 1997 - 2001

Scientific Collaborator

Ecole Polytechnique Fédérale de Lausanne - Swiss Plasma Center, Villigen PSI, Switzerland

- Development and testing of large superconducting cables and joints. Planning and realization of a large size experiment for Cable-in-Conduit stability. Redaction of technical reports, encyclopaedia sections and other publications. Member of review committees.

University, Research, Quality Control

August 1995 – July 1997

Member of the ITER-EDA Team

European Commission – Naka, Japan

- Planning and integrating the R&D activities of the project partners (US, EU, Japan, Russia) in the magnet technology area. Conductor and magnet design, AC losses, insulation, joints, industrial R&D, prototypes, task specification, progress monitoring and results evaluation.

European Institution, Research

August 1990 – July 1995

Member of the NET Team

Europa Metalli Trefimetaux AG (later KME) in Zurich, Switzerland

- Seconded to the Superconducting Magnet Division. Design activity on conductors and coils for future nuclear fusion devices. Drafting and monitoring of R&D contracts with national laboratories and industries: strand and cable-in-conduit manufacture, prototype testing.

Industry / European Institution, Research

January 88 – July 90

Cryogenic Group Leader

ABB, ASEA Brown Boveri, Oerlikon Works, Zurich, Switzerland

- Cryogenic group leader in the Magnets and Superconductor Division. Project manager, including technical and budgetary responsibility, for design and manufacturing of large size Nb₃Sn conductors for fusion magnets (first European Cable-in-Conduit Conductor).

European Institution, Research

December 79 – November 84

Research Fellow

CNR, Consiglio Nazionale delle Ricerche, Italy

- Junior fellow at the Institut für Festkörperphysik ETH, Zurich (fellowship of CNR) and at the Dept. of Physics of the University of Genova. Small size experiments on superconductivity.

University, Research

EDUCATION AND TRAINING

- 1984 - 1987 **Dr. Rerum Naturalium (PhD)**
Swiss Federal Institute of Technology (ETH), Zurich
- 1974 - 1979 **Diploma di Laurea in Fisica, 110/110 cum Laude (Physics master)**
Università degli Studi di Genova
 - Thesis Title “AC losses in high current superconductors for nuclear fusion magnets”
 - Four years master courses with master thesis on magnetization of superconducting filaments

PERSONAL SKILLS

Mother tongue Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C2	C2
French	C2	C2	C2	C2	C1
German	C2	C2	C2	C2	C1

Communication skills

- Working for long years in international teams, I learned to communicate and carry out negotiations in various cultural environments (e.g. Japanese, Russian, etc.), both at agency and industry level.
- I gained a broad range of social competences by tutoring students and trainees and by integrating in my team post-doc and professionals of different nationality.
- I teach Superconducting Magnet for Fusion at the Doctoral School of EFPL and at the Engineering Advanced Courses at Un. Padova.

Organisational / managerial skills

- Since my employment in the industry (ABB) as project leader, I learned to manage the schedule, budget, reporting and coordination of medium size projects (2M value).
- In the last decade, as section head, I manage a team of 20 people at technical-operational level, by planning the resources and workflow, setting priorities and delegating responsibilities. At financial level, I prepare the budget (range of 3 MEuro/year), monitor the expenditure and the progress and assist the administration for the audit. I maintain the reporting and archive system of the section.
- In the scope of the preparation of the EDIPO test facility and as a consultant for the hybrid coil project at HZB, I negotiate/award industrial procurement contracts (refrigerator, winding, conductor manufacture, cryostat, power supply).
- I have organized summer schools on superconductivity (Rigi 2007, Erice 2009) and a number of international workshops on the activity of the section with up to 40 attendants, both at the SPC site and outside. Program Chair at EUCAS2017 Conference

Job-related skills

- Superconductors manufacture, large size cryogenic tests, magnet technology, magnet design

ADDITIONAL INFORMATION

- Publications About 300 refereed publications in scientific Journals (list available on request)
- Presentations Several invited and review presentations at international conferences
- Projects Leading the EDIPO test facility project, active participation in ITER and DEMO projects
- Conferences Member of Program Committee, International Organizing Committee for ASC, MT and EUCAS
- Seminars Seminars on Applied Superconductivity for Industry