

Curriculum Vitae et Studiorum

of

Francesco Piazza

- **Born:** 3rd November 1970
- **Nazionalità:** italian
- **Civil status:** celibate
- **Military service:** free
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Present position

- From 1st January 2003. Assistent Post–Doctoral in the Theoretical Biophysics Laboratory, Faculty of Sciences of the École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland.

Past work experiences

- February 2001 – February 2003: INFM post–doc fellowship, FORUM project *Study of statistical and dynamical models of biomolecules*. Supervisor: prof. Roberto Livi, Dipartimento di Fisica, Università di Firenze.

Education

- October 1997 – October 2000. Heriot–Watt University, Edinburgh (UK). Ph.D. degree in Physics.
- 1989 – 1996: Università di Firenze. Physics Degree, final mark: 106/110. Laurea thesis' title: *High- T_c superconductors: study of electronic coupling through anharmonic vibrational modes*.
- 1984 – 1989: Classical Lyceum “Dante Alighieri”, Florence. Diploma, mark: 60/60.

Teaching experiences

- September 2002 – February 2003: Lecturer at the University of Florence, Engineering faculty. *General Physics I*, first semester.
- July 2002: Invited lecture on “Statistical analysis of DNA sequences: a review”, International IP–Socrates summer school 2002, Villa Agape, Florence. Lecture available on–line at:
http://www.complex.unifi.it/WebComplex/bin/view/Time_series_analysis/TeachingMaterials
- October 1997 – October 1999: Heriot–Watt University, Physics Department. Tutorships for the following courses: Experimental Physics I e II (term 1–3 1997) and General Physics I (term 1–3 1998).
- 1994 – 1997: Mathematics and Science teacher at the intermediate school *G. Barberi*, Borgo Pinti, Florence.
- 1995 – 1997: Language support teacher for foreign children at the intermediate school *G. Verdi*, Via Monteverdi, Florence.

Other work experiences

- November 1999 – March 2001: Soprintendenza per i Beni Artistici e Storici di Firenze, Galleria Palatina di Palazzo Pitti, Firenze. Assistant technical manager (part-time).
- May – December 1996: Coordinator of the on-the-road social workers at the young-people centre *Rione S. Croce* (now young-people centre *JAVA*), Florence.
- July 1995: Animator at the local children summer centre, Impruneta (Florence).
- 1989 – 2001: Private tuitions to high-school and university students for the following subjects: Latin, Ancient greek, Mathematics and Physics.

Grants

- October 1997 – October 2000: Three-year scholarship from Heriot-Watt University, Edinburgh, towards the coverage of both living expenses and Ph.D. tuition fees.

Informatic knowledge

- Programming languages: FORTRAN, BASIC.
- Operating systems: Dos, Windows 98, Macintosh 9.0, VMS, UNIX (Linux).
- Word processors: Microsoft Word, L^AT_EX.
- Spreadsheets: MS Excel, Jandel Sigma Plot, Kaleidagraph, Origin.
- Electronic editing systems: Aldus PageMaker, MS PowerPoint.
- Mathematics programs: Matlab, Maple V, Mathematica.
- Good knowledge of the programs: Adobe Illustrator, IDL, XMGR, GnuPlot.

Languages

- Excellent knowledge of written and spoken English.
- Elementary knowledge of written and spoken French.

Schools and Workshop

- 17 – 27 October 1999. Stage at ISI, Villa Gualino, Torino. Workshop “Complexity and Chaos” 1999.
- 29 August – 10 September 1999: 1999 *EPSRC Theory of condensed matter Summer school*, Coleg Harlech, North Wales. School’s subject: “High- T_c superconductivity”.
- 5 – 9 January 1998: 1998 *Winter School on Superconductivity*, Interdisciplinary Research Centre on Superconductivity (IRC), Cambridge. School’s subject: “Technological applications of high- T_c superconductivity.”
- April 1996: crash course on “Communication skills”, organised by Punto Giovani di Firenze for the social workers of *Rione S. Croce* young-people centre.

Talks and posters at international conferences

- 17 – 21 June 2002, San Lorenzo de El Escorial, Madrid, talk at International Workshop *Localisation and Energy transfer in Nonlinear Systems*. Talk’s title “Cooling non-linear lattices till energy localisation”
- 23 – 27 March 2002, Arcachon (FR), poster at International workshop *DNA in chromatin, at the frontiers of physics and biology*. Poster’s title “Study of low-complexity DNA sequences in Eukaryotes and Prokaryotes”
- 13 – 17 June 2001. Talk at Eu-US International Workshop on Discrete Breathers/Intrinsic Localized Vibrations, FORTH, Heraklion, Crete. Talk’s title “Slow energy relaxation and Localisation in 1D and 2D lattices”

Scientific publications

1. L. Cianchi, P. Moretti and F. Piazza, *Superconducting cuprates: a simple model of coupling between electronic holes through apical ions*, *Phys. Lett. A.* **246**, 451 (1998).

2. F. Piazza, S. Lepri and S. Livi, *Slow energy relaxation and localization in 1D lattices*, *J. Phys. A.* **34**, 9803 (2001).
3. F. Piazza *et al.*, *Study of atomic motions in $\text{EuBa}_2\text{Cu}_3\text{O}_{7-\delta}$ by Mössbauer and EXAFS spectroscopies.*, *J. Superc.* **14**, 675 (2001).
4. F. Piazza, *Nonlinear Lattice Dynamics of High- T_c Superconductors*, *Ph.D. thesis*, Heriot-Watt University, Edinburgh (2001).
5. F. Piazza, S. Lepri and R. Livi, *Cooling nonlinear lattices toward localisation*, invited paper, *Chaos – Focus Issue Nonlinear localised modes; Fundamental Concepts and Applications*, **13** (2), (2003).
6. F. Piazza, *A quantum perturbative pair distribution for determining interatomic potentials from EXAFS*, *J. Phys. C*, **14** (45), 11623 (2002).
7. F. Piazza, *Dynamics of CuO_2 -like lattices*, in preparation.
8. F. Piazza *et al.*, *Lattice dynamics of apical ions in $\text{Ca}_2\text{CuO}_2\text{Cl}_2$: an EXAFS study at the Cu K-edge*, in preparation.
9. F. Piazza and S. Ruffo, *Statistical studies of low-complexity DNA sequences in Eukaryotes and Prokaryotes*, in preparation.

Other interests

- Dogged music and piano student.
- Drawing and painting.