
CURRICULUM VITAE

Personal

Information:

LIVIO CONTI

Date and place of birth:

6 August 1969, Ceprano (FR)

Citizenship:

Italian

Home address:

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Military service

Exempted

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Rome Tre University,
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Via della Vasca Navale, 84, 00146 Rome, Italy
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Languages:

- English and French

Education:

High school:

Liceo Classico. Marks: 60/60.

University:
(1995)

Degree Thesis:

Five years degree in Physics (*Laurea, cum laude*) at "La Sapienza" Rome University
"Study of the quasi-temporal gauge on the lattice and non perturbative calculation of the renormalization constant of the axial current".
Supervisor: Prof. Silvano Petrarca.

Master:

(1995-1996)

Master in Physics at "La Sapienza" University of Rome

Post-degree

fellowship (1996)

Research subject:

Winner of a fellowship for Theoretical Physics of the National Institute of Nuclear Physics (INFN).
Research team: "Gruppo APE", Dept. of Physics, at "La Sapienza" University of Rome
"Non perturbative calculation of the f^B decay constant, study of the $\Delta I=1/2$ rule in the non-leptonic K decay, evaluation of the B-parameters for the complete basis of 4-fermion operators with $\Delta S=2$ ".
Supervisors: Prof. G. Martinelli, Prof. A. Vladikas.

Ph.D.:

(1996-1999)

Ph.D Thesis:

Ph.D. in Physics at "Tor Vergata" University of Rome

"Study of the top quark decay: radiative correction to the $t \rightarrow b W$ decay and finite width effect in the $t \rightarrow b W Z$ decay".
Supervisor: Prof. Guido Altarelli.

Post-doc:

<u>Post-doc:</u> (2002-2006) Research project:	Postdoctoral Research assistant at Roma Tre University, Department of Physics, assigned to work on the ESPERIA project “ <i>ESPERIA project</i> ”. Supervisor: Prof. Vittorio Sgrigna.
<u>Post-doc:</u> (2006-2007) Research project:	Postdoctoral Research assistant at Roma Tor Vergata University, Department of Physics “ <i>Development of instrumentation to detect electric and magnetic fields in the top-side ionosphere</i> ”. Supervisor: Prof. Piergiorgio Picozza.
<u>Post-doc:</u> (2007-2008) Research project:	Research Contract with the INFN, Sezione di Perugia “ <i>Study of the experimental configuration of electric and magnetic field detectors for space applications</i> ” Supervisor: Prof. R. Battiston.
<u>Post-doc:</u> (2009-at present) Research project:	Research Contract with the INGV, Sezione di Roma. “ <i>Interseismic numerical modeling from SAR and optical data- SIGRIS Project</i> ”. Supervisor: Dr. Salvatore Barba.

Contracts & collaborations:

<u>European Space Agency (ESA)</u> (February-May 2000)	Research Contract with the ULISSE consortium (“Tor Vergata” University) for the analysis of particles data observed by SAMPEX/PET (NASA) satellite. Supervisor: Prof. A. Salsano.
<u>Laben Spa</u> (2000)	Research Contract at the “Tor Vergata” University. Grant funded by LABEN Spa Corporate prime contractor for the ESPERIA payload. Supervisor: Prof. P. Picozza
<u>Italian Space Agency (ASI) and Roma Tre University</u> (March-August 2001)	Research Contract with the Roma Tre University to develop the Phase A Study of the ESPERIA project. Supervisor: Prof. V. Sgrigna
<u>L’Aquila University</u> (Nov.2 001-Apr. 2002)	Research Contract to study earthquake precursors with satellite data Supervisor: Prof. R. Scrimaglio.
<u>Adimedia srl, Unicity (Roma)</u> (Nov.2000-Mar. 2001)	Contract to develop Internet web sites and database management with SQL and Transact-SQL
<u>Tor Vergata University</u> (March-July 2006)	Research Contract for the project “ <i>Innovative devices for electric and magnetic field measurements and data acquisition equipments for space missions</i> ” Supervisor: Prof. P.Picozza

Teaching:

Roma Tre University
Dep. of Physics &
Dep. of Mathematics Teaching Assistant and Tutor for several 1st and 2nd year physics, mathematics and optics courses (mechanics, electricity, magnetism) and laboratory (mechanics, optics and electronics):

- | | |
|----------------|---|
| A.A. 1999-2000 | - Teaching Assistant, 1 st year mathematics course: mechanics, electricity, magnetism. |
| A.A. 2000-2001 | - Teaching Assistant, 2 nd year mathematics course: electromagnetism
- Tutor for 1 st year physics course: mechanics laboratory. |
| A.A. 2001-2002 | - Teaching Assistant, 1 st year mathematics course: mechanics, electricity, magnetism.
- Tutor for 1 st year physics course: mechanics laboratory. |
| A.A. 2002-2003 | - Tutor for 1 st year physics course: mechanics |
| A.A. 2003-2004 | - Tutor for 1 st year physics course: mechanics |
| A.A. 2004-2005 | - Teaching Assistant, 1 st year physics course: mechanics
- Teaching Assistant, 2 nd year physics course: electronics laboratory. |
| A.A. 2008-2009 | - Teaching Assistant, 1 st year optics course: optics laboratory |

Doctorate School,
A.A. 2003-2004 Lectures for Ph.D. in Physics (“XIX Ciclo”): “*Physics of the wave-particle interactions in the iono-magnetospheric region*”

Roma Tre University
Dep. of Physics,
A.A. 2004-2005 Lectures for the 3rd year physics course: *Physics of the Ionosphere*

Supervisor of several degree Theses

“La Sapienza”
University of Rome
(2003) Supervisor of the Degree Thesis in Physics:
“*Preseismic electromagnetic emissions and magnetospheric perturbations*” by Aurora Buzzi.

Roma Tre University
(2004) Supervisor of the Degree Thesis in Physics:
“*Generation and propagation of electromagnetic preseismic emissions*”
by Antonella Cirella.

Roma Tre University
(2004) Supervisor of the Bachelor Thesis in Physics:
“*Data analysis of electromagnetic differential strainmeter*”
by Emiliano Mancini.

“La Sapienza”
University of Rome
(2005) Supervisor of the Degree Thesis in Physics:
“*The EGLE experiment on board of the International Space Station*”
by Carlo Stagni.

Roma Tre University
(2006) Supervisor of the Degree Thesis in Physics:
“*Study of the propagation of seismo-electromagnetic emissions into the atmosphere and magnetosphere*” by Sara Ronchetti.

Scientific activity:

Edinburgh,
February-March
1995:

The study of the quasi temporal gauge (started within the “APE Group” in Rome) has been developed on the lattices of the UKQCD collaboration with Prof. C. Parrinello and Dr.D.S.Henty at the Physics Department of the Edinburgh University.

“La Sapienza”:
University of Rome
(1995-1997)

Non perturbative calculation of the f^B decay constant, study of the $\Delta I=1/2$ rule in the non-leptonic K decay, evaluation of the B-parameters for the complete basis of 4-fermion operators with $\Delta S=2$.

Supervisors: Prof. G.Martinelli and Prof. A. Vladikas

Roma Tre
University:
(1996-2000)

Collaboration with Prof. Altarelli and Prof. Vittorio Lubicz to study the rate of the top decay process: $t \rightarrow b W Z$. This channel is on threshold and is allowed for $m_{\text{top}} \approx 176$ GeV. The research has allowed to correct previous estimations (published in literature) of the branching ratio: the decay probability at the threshold level is strongly controlled by the effects of W and Z finite widths.

ESPERIA satellite
project:
(2000)

Study of the temporal correlation between electromagnetic emissions due to seismic activity and the precipitation of particle from the inner Van Allen radiation belts.

These phenomena can be investigated by particle detectors, Langmuir probes and EM field sensors installed on board of satellite. On this subject there is a fruitful collaboration between the Roma Tre University (Prof. V.Sgrigna), the “Tor Vergata” University of Rome (Prof. P.Picozza), the INFN (Italy), the MePhI of Moscow (Russian Federation) (Prof. Galper), the Georgian Academy of Science (Tbilisi, Rep. of Georgia) (Prof. D.Zilpimiani). In this framework, the Italian Space Agency (ASI) has supported the Phase A Study of the ESPERIA (Earthquake investigations by Satellite and Physics of the Environment Related to the Ionosphere and Atmosphere) satellite project dedicated to measure seismo-electromagnetic emissions. In the Phase A Study, Livio Conti:

- has participated to the mission design and planning;
- has analysed the data collected by the SAMPEX satellite to define the ESPERIA orbital requirements;
- has been responsible of the particle detector analyser (PDA) and of the MAFA magnetometers on board of the satellite.

On the same subject Livio Conti has collaborated to design the particle detector of the ARINA experiment (ROSAVIKOSMOS, & INFN) in orbit since 2006 within the PAMELA experiment.

“TELLUS”
monitoring Network
(2001- in progress)

Within the studies of the lithospheric deformations, Livio Conti is co-investigator of the tiltmeters TELLUS Network installed in Central Apennines (at the LNGS INFN Laboratory, in a L’Aquila cave, and in the Stiffe caves) to measure the “tilt” deformations of crustal blocks. The TELLUS network is continuously monitoring the area. Data registered in occasion of the Umbria seismic crisis (1997) have allowed to observe important results of a seismic creep in the preparation focal area.

“Electromagnetic
differential
strainmeter” (First

The ESPERIA team has developed an “electromagnetic differential strainmeter” (First Patent of Roma Tre University). This equipment can measure deformation near the seismic faults. but also the stability of

Patent of Roma Tre University
(2002-2003)

buildings and landslides. A prototype of the instrument has been installed at Valmalenco for the monitoring of the Spriana (Sondrio) landslide. For this project Livio Conti has built the remote control system and the data acquisition and signal conditioning units. The project has been supported by the Lombardia Region.

“DEMETER” satellite
(2004-in progress)

The ESPERIA team is *Guest Investigator* of the DEMETER French satellite mission (Principal Investigator: Prof. M.Parrot, CNRS/LPCE). The mission is devoted to study seismic, anthropogenic and natural electromagnetic emissions. In this framework Livio Conti is analysing data of electric and magnetic field (IMSC and ICE experiments) and of particle (IDP experiment) measured on board of the DEMETER satellite. The study is dedicated to research electromagnetic emission induced by the seismic activity in the low magnetosphere.

“LAZIO-SIRAD-EGLE” experiment
(2002-2006)

The LAZIO-SIRAD-EGLE experiment (within the framework of the PRIN2002 program of the MIUR (Italian Education Minister)) is a collaboration between the Universities of Roma Tre, Perugia and “Tor Vergata”, INFN, MEPHI, FILAS-RegioneLazio). Aim of the experiment is to study the ionizing radiations (particle detector LAZIO-SIRAD, R.Battiston & P.Picozza) and the electromagnetic emissions (EGLE magnetometer, V.Sgrigna) on the top-side ionosphere.

The experiment has been carried out by the Italian astronaut R. Vittori, within the ENEIDE mission (April 2005) on board of the International Space Station. This study will help to monitor particle and electromagnetic ISS environment. Particular interest is devoted to detect electromagnetic pre-seismic emissions and precipitation of particle bursts from the inner Van Allen radiation belts. Within the LAZIO-SIRAD-EGLE mission, Livio Conti:

- is co-investigator of the EGLE experiment, constituted by a search-coil uniaxial magnetometer to measure low frequency geomagnetic fluctuations;
- is head of the EGLE data analysis
- is head of the on board pc architecture.

Triaxial magnetometer and electrometer
(2006- 2007)

In collaboration with D. Zilpimiani (Georgian Academy of Science) and V.Sgrigna (Roma Tre University) L.C. has developed a triaxial magnetometer and an electrometer within the framework of the project “Development of an innovative instrument for space born simultaneous measurement of perturbations of the electric/magnetic field and of high energy trapped particles in the Van Allen belts and their correlation with geophysical phenomena”, PRIN 2005, P.I. Prof. R.Battiston.

Model of propagation of seismo-electromagnetic signals
(2003-in progress)

Livio Conti is studying the propagation of electromagnetic waves through layered media with several conductivity profiles. Aim of the research is to model the seismo-electromagnetic source as a multipoles electric and magnetic expansion and to study the propagation of SEM from the hypocentral zone, to the Earth surface up to the ionosphere to evaluate the strength of the EM fields for satellite observations.

AUSONIA project
(2007- in progress)

The candidate is part of the group, led by Prof. V.Sgrigna, that has developed the satellite project AUSONIA submitted to the Italian Space Agency. Aim of the project is:

- to study the temporal stability of the flow of Van Allen particles and emissions of X-rays and gamma of terrestrial origin;
- mapping of the geomagnetic field;
- the ionospheric monitoring and the tomography of the plasmasphere;
- to study optical and UV emissions of tropospheric origin.

The project, developed in collaboration with Carlo Gavazzi Space SpA, the INFN and the INGV, involves more than 10 Universities and Research institutes. Livio Conti is involved in the development of X and gamma ray detector and is responsible of the MAGIA (search-coil magnetometer) experiment on board of AUSONIA.

Patents of Industrial Inventions
(2008-2009)

The candidate is involved to develop techniques and electronic devices suitable for continuous and high efficiency spectral analysis and waveform reconstruction of analog signals. Aim of this research is to develop devices to optimize the dynamic range of the analog-digital conversion. These devices can find useful application in explorative studies of signals with unknown spectrum and temporal variability and for which a continuous calibration of the amplifier gain in each frequency band is needed. These systems are suitable in laboratory applications, in ground based and space based observations to study every kind of analog signals (of a mechanical, acoustic, optical, electromagnetic kind) for devices requiring reduced form factor, modularity, and low power consumption.

For these devices Livio Conti is owner and inventor of the following patents:

- n. **RM2008A000688**
- n. **RM2009A000001**
- n. **RM2009A000200**
- n. **RM2009A000207**

Advances in Space Research
(2004 – at present)

Since 2004 Livio Conti is reviewer for the “*Advances in Space Research*” journal.

Conferences – Meetings – Schools:

- Edinburgh (UK), February-March 1995: Collaboration with Prof. C.Parrinello e Dr. D.S.Henty on the quasi temporal gauge. Grant given by the INFN.
- Cortona (Italy), June 1995: “Convegno annuale dei fisici teorici italiani” meeting. Title of the talk: “*Study of the quasi temporal gauge on the lattice*”
- Parma (Italy), September 1996: “V Seminario Nazionale di Fisica Teorica” summer school
- Otranto (Italy), September 1996: “IX Seminario Nazionale di Fisica Nucleare e Subnucleare” summer school
- Edinburgh (UK), July 1997: “Lattice’97” conference. Title of the contribution: “*A High Statistics Lattice Calculation of Heavy-Light Meson Decay Constants*”.
- Boulder, (Colorado,USA), “Lattice’98” conference. Title of the talk: “*B-parameters for $\Delta S = 2$ SUSY Operators*”.

- July 1998:
- Corfù (Greece),
September 1998: “*Summer Institute of Corfù on the elementary Particle Physics*”, summer school
- Moscow (Russian Fed.),
June 2000: Russian-Italian meeting at the MePhI of Moscow, on the ARINA experiment and the ESPERIA mission
- Nice (France),
April 2002: Conference “European Geophysical Society 2002”. Title of the contribution “*Natural and anthropogenic emissions from the earth's surface and their effects in the near earth space*”.
- Nice (France),
April 2003: Conference “EGS-AGU-EUG 2003”.
- Toulouse (France),
September 2003: “ISEC2003 Radiation Belt Science” conference, September 2-5, Toulouse (France). Title of the contribution: “*A Possible Correlation between Seismic Events and Trapped Particles precipitation*”, di A.Buzzi, L.Conti, A.M.Galper, S.V.Koldashov, V.Malvezzi, A.Murashov, P.Picozza, R.Scrimaglio, V.Sgrigna, and L.Stagni, P19, Abstract p. 45.
- Nice (Francia),
April 2004: “EGU 2004” conference.
- Corte (Corsica, France)
July 2004: “*NATO Advanced Study Institute on Sprites, Elves and Intense Lightning Discharges*” Corte in Corsica, July 24-31, 2004. Poster: “*Seismo-electromagnetic emissions*” (A. Buzzi, et al.)
- Moscow (Russian Fed.),
January 2005: Participation to the *Acceptance Test 2* of the LAZIO-Sirad-EGLE experiment at the ENERGIA Center of Moscow.
- Moscow,(Russian Fed.),
February 2005: Head of the training for the astronauts (R.Vittori (Italy) and B.Thirsk (Canada)) about the EGLE magnetometer working procedure for the ISS-ENEIDE mission. (“*Juri Gagarin*” Center (Star City))
- La Antigua
(Guatemala), April
2005 Talk “*Un método de estudio satelitar de precursores sísmicos*” at the “*Incontro Italo-CentroAmericano sulla prevenzione e mitigazione dei rischi naturali*” organized by IILA, at La Antigua, (Guatemala), April 20-25, 2005.
- Frascati (Italy),
February 2005 “*INFN-SPAZIO / 2*” meeting, LNF, 16 Feb. 2005, Frascati (Italia)
- Toulouse (France),
July 2005 “IAGA 2005” conference (*Toulouse, France, 18 - 29 July*), talks :
 - “*The EGLE experiment*”, di L. Conti, A. Buzzi, V. Sgrigna, C. Stagni, et al. (The EGLE experiment Team), IAGA2005-A-01522.
 - “*Influence of the seismic activity on the inner Van Allen radiation belt*”, Conti L., Buzzi A., Galper A.M., Koldashov S.V., Murashov A.M., Picozza P, Scrimaglio R., Sgrigna, V. and Stagni L, IAGA2005-A-01518.
- Milan (Italia),
October 2005 “*I percorsi dell’Innovazione*” exhibition (Il Sole 24Ore & Camera di Commercio di Milano), “*Filas per lo Spazio: la missione Eneide*”, Smau 2005, October 1st 19-23 2005.

Perugia (Italia),
December 2005

1st Italy-China meeting on “Observations and analysis of seismo-electromagnetic precursors on ground and from space”, (organized by INFN and CEA (Chinese Earthquake Administration), talks:

- “*The EGLE magnetometer*”;
- “*Overview of the existing literature evidence of seismo-electromagnetic precursors: space based observations*”;
- “*Correlations between earthquakes and anomalous particle bursts from SAMPEX/PET satellite observations*”, Conti L., Buzzi A., Galper A.M., Koldashov S.V., Murashov A.M., Picozza P., Scrimaglio R., Sgrigna, V. and Stagni L..

Tolosa (Francia),
June 2006

“Symposium International Déméter” (Toulouse, France, 14-16 June 2006). Talk : “*Seismo induced electromagnetic and particle perturbations in space*” by Conti L., A.Buzzi, P.Picozza, S.Ronchetti, V.Sgrigna, C.Stagni, D. Zilpimiani.

ESTEC (Olanda),
July 2006

LAZIO experiment Acceptance Test: ASTROLAB Mission on board of the International Space Station during Increment 14.

Orleans (Francia),
November 2006

LPCE - Gruppo Esperia meeting, within the “DEMETER Guest investigator programme”.

ESTEC (Olanda),
February 2007

Final Review meeting on the ASTROLAB Mission on board of the International Space Station during Increment 14.
Talk: *The LAZIO experiment during the Increment 14.*

Roma (Italy),
May 2007

Meeting: “ACTEL Radiation tolerant FPGAs for satellites and high-energy physics”, Dip. di Fisica, Università Roma Tre.

Perugia (Italy),
July 2007

“IUGG, XXIV General Assembly”, (Perugia, 2-13 July 2007).
Talk: *Possible influence of seismic activity on the propagation of anomalous whistlers recorded in space*, by: L.Conti, A. Buzzi, M. Parrot, J.L.Pinçon, V.Sgrigna and D.Zilpimiani, IAGA-IASPEI-IAVCEI Joint Section “JSS010: Progress in electromagnetic studies on earthquakes and volcanoes - Seismo-electromagnetic studies using space technology”, Abstr. 10093, (Oral Presentation n.2072).
Poster: *Statistical study of anomalous fluctuations of whistler data recorded by DEMETER*, by A. Buzzi, L.Conti, M. Parrot, J.L.Pinçon, V.Sgrigna and D. Zilpimiani, IAGA-IASPEI-IAVCEI Joint Section "JSS010: Progress in electromagnetic studies on earthquakes and volcanoes - Seismo-electromagnetic studies using space technology", Abstr. 10032, (Poster presentation n.2090).

Jakarta (Indonesia),
July 2007

“International Workshop on Early Warning and Monitoring Earthquake by Using Electromagnetism Detecting Satellite” (25 – 27 July 2007, Jakarta, Indonesia) organized by: Secretariat of Asia Pacific Multilateral Cooperation in Space Technology and Applications (AP-MCSTA), Indonesian National Institute of Aeronautics and Space (LAPAN), and China National Space Administration (CNSA).
Talk: “*Experience on the Magnetic and Electric Detectors of the EGLE-LAZIO Technology Demonstrator*”, by: L. Conti and V. Sgrigna.

Roma (Italy),
December 2007

Meeting: “Corso di programmazione di FPGA: Radiation tolerant FPGAs for satellites and high-energy physics”, Dip. di Fisica, Roma Tre Univ.

Perugia (Italy)
February 2008

2nd Italy-China meeting on “Observations and analysis of seismo-electromagnetic precursors on ground and from space”, (organized by INFN and CEA (Chinese Earthquake Administration). Talks:

- “*The electromagnetic detectors for satellite observations: from the EGLE experiment to the three-axial search-coil magnetometer*”
- “*Seismo electromagnetic precursors: the Sampex data analysis*”

Software expertise:

- OS: UNIX, Linux and WINDOWS.
- Data acquisition and remote control
- Digital Signal Processor (DSP) programming
- FORTRAN, C , CVI, etc.
- Internet: HTML, ASP JavaScript, JScript, VBScript.
- Database: SQL, Transact-SQL, Access.
- MATHEMATICA, MATLAB.
- Office, LaTeX, Origin

Data processing:

- Statistical data Analysis
- Signal Analysis (IDL , SWAN, Code Composer Studio)
- Management of satellite database and monitoring networks
- Orbital analysis, satellite flight simulation (STK)
- Numerical simulations and Montecarlo techniques

Patents:

Ufficio Italiano
Brevetti e Marchi
(Patents Italian
Office)
(Dec. 20th 2008)

Patent pending n. **RM2008A000688**
OWNER: Livio Conti
TITLE: “Metodo a feedback variabile di condizionamento di segnali e relativo sistema di acquisizione, analisi spettrale e gestione digitale dei dati”
 (“Tunable feedback method for signal conditioning and acquisition system, spectral analysis and data processing”)
IPC CLASS (International Patent Classification): G01R23165
 (“SECTION G - PHYSICS: Measuring electric variables / measuring magnetic variables: Arrangements for measuring frequencies / Arrangements for analysing frequency spectra using filters”),
INVENTORS: Livio Conti, Vittorio Sgrigna, David Zilpimiani

Ufficio Italiano
Brevetti e Marchi
(Patents Italian
Office)
(Jan 2nd 2009)

Patent pending n. **RM2009A000001**
OWNER: Livio Conti
TITLE: “Tecnica di ricostruzione della forma d'onda di segnali con selezione multicanale ed amplificazione differenziale variabile a retroazione”
 (“Technique for signals waveform reconstruction based on a multichannels selection and tunable feedback differential amplification”)
IPC CLASS (International Patent Classification): G01R1304
 (“SECTION G - PHYSICS: “Arrangements for displaying electric variables or waveforms for producing permanent records”)
INVENTORS: Livio Conti, Vittorio Sgrigna, David Zilpimiani

Ufficio Italiano
Brevetti e Marchi
(Patents Italian
Office)
(April 4th 2009)

Patent pending n. **RM2009A000200**
OWNER: Livio Conti
TITLE: “Sistema di calibrazione dell’amplificazione per dispositivi di acquisizione di segnali analogici”
 (“System to calibrate amplification in analog data acquisition devices”)
CLASSE IPC (International Patent Classification): G01D302
 (“SECTION G01D, subclass: “Measuring arrangements with provision for altering or correcting the transfer function”)
INVENTORS: Livio Conti, Vittorio Sgrigna, David Zilpimiani

Ufficio Italiano
Brevetti e Marchi
(Patents Italian
Office)
(April 30th 2009)

Patent pending n. **RM2009A000207**
OWNER: Livio Conti
TITLE: “Scheda di condizionamento per il filtraggio e l’amplificazione multicanale a retroazione in sistemi di acquisizione di segnali analogici”
 (“Conditioning board for filtering and multichannels feedback amplification in analog data acquisition devices”)
CLASSE IPC (International Patent Classification): G01R2300
 (“SECTION G - PHYSICS: Measuring electric variables / measuring magnetic variables: Arrangements for measuring frequencies / Arrangements for analysing frequency spectra”)
INVENTORS: Livio Conti, Vittorio Sgrigna, David Zilpimiani

Publications:

1. **Testing the Quasi-temporal Gauge on the Lattice**
L. Conti, C. Parrinello, S. Petrarca and A. Vladikas.
Physics Letters B 373 (1996), p. 164-170.
2. **Full QCD with dynamical Wilson fermions on a $24^3 \times 40$ -lattice – a feasibility study,**
T χ L-Collaboration: L. Conti, N. Eicker, L. Giusti, U. Glassner, S. Gusken, H. Hoerber, Th. Lippert, G. Martinelli, F. Rapuano, G. Ritzenhofer, K. Schilling, G. Siegert, A. Spitz, and J. Viehoff, *Nucl. Phys. B (Proc. Suppl.)* 53 (1997) 222.
3. **A High Statistics Lattice Calculation of Heavy-Light Meson Decay Constants**
C. R. Allton, L. Conti, M. Crisafulli, L. Giusti, G. Martinelli, F. Rapuano.
Phys.Lett. B 405 (1997) 133.
4. **Non-perturbative Renormalization of the Complete Basis of Four-fermion Operators and B-parameters**
L. Conti, A. Donini, V. Gimenez, G. Martinelli, M. Talevi, A. Vladikas.
Nucl.Phys. Proc.Suppl. 63 (1998) 880.
5. **Heavy-Light Meson Decay Constants on the Lattice**
L. Conti *Nucl.Phys. Proc.Suppl.* 63 (1998) 359.
6. **Lattice B-parameters for $\Delta S = 2$ and $\Delta I = 3/2$ Operators**
L. Conti, A. Donini, V. Gimenez, G. Martinelli, M. Talevi, A. Vladikas.
Phys.Lett. B 421 (1998) 273.
7. **B-parameters for $\Delta S = 2$ Supersymmetric Operators**
C. R. Allton, L. Conti, A. Donini, V. Gimenez, L. Giusti, G. Martinelli, M. Talevi, A. Vladikas. *Phys.Lett. B* 453 (1999) 30.
8. **ΔM_k and ϵ_k in SUSY at the next-to-leading order**
M. Ciuchini, L. Conti, A. Donini, E. Franco, V. Gimenez, L. Giusti, V. Lubicz, G. Martinelli, A. Masiero, I. Scimemi, L. Silvestrini, M. Talevi, A. Vladikas
Journal of High Energy Phys. 9810 (1998) 008.
9. **B-parameters for $\Delta S = 2$ Supersymmetric Operators**
C. R. Allton, L. Conti, A. Donini, V. Gimenez, L. Giusti, G. Martinelli, M. Talevi, A. Vladikas.
Nucl.Phys.Proc.Suppl. 73 (1999) 315.
10. **The $t \rightarrow b W Z$ decay in the Standard Model: a critical reanalysis**
G. Altarelli, L. Conti and V. Lubicz
Phys.Lett. B 502 (2001) 125.
11. **Ionospheric perturbations possibly caused by preseismic electromagnetic emissions**
V. Sgrigna, L. Conti, M. Corsi, A. Galper, V. Malvezzi, P. Picozza, R. Scrimaglio, L. Stagni and D. Zilpimiani.
Eos.Trans.AGU, 82(20), *Spring Meet.Suppl.*, S52A-14, S272, 1330h Poster (2001).
12. **TELLUS. Ground deformations and their effects on the near-Earth space**, Sgrigna, V., Conti, L., Malvezzi, V.,

LNGS Annual Report 2001, INFN, LNGS/EXP-02/02,2002, pp.247-264.

13. **ESPERIA Phase A Report**
(*ESPERIA Collaboration*) V.Sgrigna, L. Conti, V.Malvezzi, M. Parisi , L.Stagni, P.Picozza, M. Casolino, M.P. De Pascale, G. Furano, F.Mariani, A.Salsano, M. Caputo, P.Dominici, P. Spillantini, R. Scrimaglio, N.Finetti, L.Carota, R.Console, A.Lisi A.M. Lombardi, M.Parrot, A.M. Galper, S.V. Koldashov, A.M. Murashov, I. Shirokov, V. Nikolaev, D. Zilpimiani , Z. Chelidre, T.B. Yanovskaya, V.N. Troyan, K. Eftaxias, V. Hadjcontis, R. Bruno, A. Di Lillis, M. Bini, A. Ignesti, V. Piuri.
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