Curriculum Vitae

**Personal Data**

Dr. Michele Viti

Wendloher Weg 5

20251 Hamburg

Telephone: 040 51326323

Mobile phone: 0151 54980307

E-Mail: [micheleviti78@hotmail.com](mailto:micheleviti78@hotmail.com)

Date of birth: 17. April 1978

Place of birth: Arezzo, Italy

Nationality: Italian

**Professional experience**

**01.2010-heute** Deutsches Elektronen-Synchrotron DESY Hamburg, ALFA Project of the

ATLAS Experiment at CERN (Geneva, Switzerland), Postdoctoral research

**Tasks:**

In the ALFA Project, tracking detector composed by scintillating fibers are installed in vacuum holders along the beam pipe at the LHC accelerator

* Before of the installation of the detectors in the LHC tunnel, planning and performing tests on the detectors at CERN
  + Reconstruction of the reference tracks with EUDET silicon-pixel detector und performing the alignment between EUDET und ALFA detectors
  + Processing of the data from test beam with self-developed programs and preparation for die analysis within the ALFA Group
  + Taking part on test data analysis
* Beginning 2011 installation of the detectors in the LHC tunnel
  + Presently coordinator of the Data Preparation Group, which is responsible for the processing and preparation of the data for the physics analysis
  + Maintenance and further development of software interfaces
  + Taking part on the physics data analysis

**Software Used:**

Operating Systems: Ubuntu Linux, Scientific Linux, Windows XP/7

Programming languages: C++, Python

Software Framework: Marlin

Libraries: Minuit

Data analysis: ROOT

**02.2006-12.2009** Deutsches Elektronen-Synchrotron DESY Zeuthen, International Linear

Collider Project, Researcher

**Tasks:**

See graduate studies.

**02.2005-01.2006** Perugia University, Italy, Researcher

**Tasks:**

Continuation of the master thesis work

**Graduate Studies**

**02.2006-08.2009** Deutsches Elektronen-Synchrotron DESY, Zeuthen, Linear Collider

Group, PhD Student / Researcher

Subject: Precise and Fast Beam Energy Measurements at the International Linear Collider

**Tasks:**

* Build and test a prototype for the beam energy measurement for a future particle accelerator at the Stanford Linear Accelerator Center (USA)
  + Planning and performing tests, test data taking
  + Measurement and characterization of dipole magnets
  + Data analysis and determination of the resolution for the beam energy measurement
* Feasibility studies for a new method for beam energy measurement based on Compton backscattering of electrons on laser photons
  + Computer simulation of the layout of the apparatus
  + Studies on the requirements on the laser properties
  + Computer simulation und studies for several detector options
  + Estimation of possible physical background processes and their impact on the beam energy measurement

**Software Used:**

Operating Systems: Ubuntu Linux, Scientific Linux, Windows XP

Programming languages: C++, Python, FORTRAN

Software Framework: GEANT 4

Libraries: Minuit

Data analysis: ROOT

Monte Carlo Generator: CAIN, COMRAD

**11.2009** PhD thesis defense

**Master Thesis**

**11.1997-10.2004** Perugia University, Italy, Elementary Particle Physic.

Title of the thesis: Evaluation of a Tracking Algorithm for the Trigger of the KOPIO Experiment

**Tasks:**

* Computer simulation of a Pattern Recognition algorithm for the trigger of the KOPIO experiment
* Development of an Event Display for the simulation program

**Software Used:**

Operating Systems: Windows XP, Red Hat Linux

Programming languages: FORTRAN, C

Software Framework: GEANT 3

Libraries: OpenGL

Data Analysis: PAW

**High School**

**09.1992-07.1997** Scientific High School „Liceo Scientifico G. da Castiglione, Castiglion Fiorentino”, Italy

**Leadership Positions**

**07.2011-heute** Coordinator of the Data Preparation Group for das ALFA Project

**Teaching**

**07.2006-09.2006** Supervising DESY Summer Student

**07.2007-09.2007** Supervising DESY Summer Student

**07.2010-09.2010** Supervising DESY Summer Student

**04.2011-02.2012** Supervising Master Student

**Business Stays Abroad**

**02.2006-heute** Living and working in Germania

**2006-2007** 5 periods of stay in Stanford University, USA

**02.2008** Novosibirsk, Russian Federation

**01.2010-heute** Regular travels to Geneva, Switzerland

**Spoken Languages**

Italian: native language

German: fluent

English: fluent

**Further EDP Knowledge**

Programming languages: Pascal, BASIC

Other: MS OFFICE, LATEX, UML (basic knowledge)

**Hobbies and Free time**

* Sailing (licenses: SBF Binnen, SBF See, SKS)
* Club member Verein Jugendsegeln e.V., Kiel
* Crew member of the historical ship Präsident Freiherr von Maltzahn, Museumshafen Övelgönne e.V., Hamburg
* Hiking
* Low German language

**Publications**

* M. Viti, Precise and fast beam energy measurement at the International Linear Collider, DESY-THESIS-2010-007
* H.-J. Schreiber et al. (M.Viti) Magnetic measurements and simulations of a 4-magnet dipole chicane for the International Linear Collider, Particle Accelerator Conference (PAC07), Albuquerque, NM, U.S.A
* M. Viti, Energy measurement with Compton backscattering: Updates, LCWS-2007-MDI23
* N. Muchnoi, H. J. Schreiber and M. Viti, ILC beam energy measurement by means of laser Compton Backscattering, Nucl. Instrum. Meth., A607:340-366, 2009
* A. Lyapin et al. (M.Viti) Results from a prototype chicane-based energy spectrometer for a linear collider JINST 6 (2011) P02002, arXiv:1011.0337
* M. Viti, Forward Physics Results from ATLAS, Hadron Structure '11,Tatranská .trba, Slovak Republic
* ATLAS authorship