

# Carlo Appino

## PERSONAL DATA

Carlo Appino was born in Biella, in 1961.

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## BIO AND EDUCATION

14/11/1985: Degree in Physics, from Università di Torino.

22/09/1992: Ph. D. in Physics, from Politecnico di Torino.

01/02/1988 – 30/06/1994: scholarship holder at Istituto Elettrotecnico Nazionale Galileo Ferraris (IENGF).

Since 01/07/1994: full time researcher at l'ENGF (from 2005 Istituto Nazionale di Ricerca Metrologica (INRIM)).

15/09/2010-14/12/2010: Invited scientist at the CNRS-G2Elab, Grenoble (France).

12/10/2014-18/10/2014: Invited scientist at the SATIE laboratory (ENS de Cachan, France).

Referee of a number of international journal, and of main international conferences on magnetism.

He served as editor for 4 International Conferences on magnetism.

He participated in 8 International Research Projects/Networks (responsible for IENGF in one of them), and in 3 international Round Robins (Project leader for INRIM in one of them).

Co-tutor of 6 dissertations for the Physics Degree at the University of Torino and 8 bachelor degrees at Politecnico di Torino and University of Napoli.

He is author/co-author of 88 peer-reviewed scientific papers (published in international journals or conference proceedings), and 2 chapters of book.

## SCIENTIFIC POSITIONS

2016	Chair of the session "Magnetic Energy and Losses", at congress AIM 2016, 14-16 marzo 2016, Bormio (Italy)
2016	Member of the International Steering Committee of the conference "1&2 Dimensional Magnetic Measurement and Testing"
2014	Co-chair of the Program Committee of the conference "13 <sup>th</sup> International Workshop on One- and Two-Dimensional Magnetic Measurement and Testing"
1998-2004	Responsible for official line of research at IENGF
1997-2005	Director of the school "MISURE e MATERIALI MAGNETICI" at l'ENGF (INRIM from 2005)

## MAIN FIELDS OF INTEREST

1. Ferromagnetic hysteresis
2. Theoretical and experimental aspects of scalar and vector magnetization processes.
3. Magnetic materials for electrical engineering applications

## TOP FIVE PAPERS

1. F. Fiorillo, L. R. Dupré, **C. Appino**, A. M. Rietto  
*"Comprehensive Model of Magnetization Curve, Hysteresis Loops, and Losses in Any Direction in Grain-Oriented Fe-Si"*  
IEEE TRANSACTIONS ON MAGNETICS, Vol. 38; pp. 1467-1475 (2002).
2. E. Della Vecchia, M. Coisson, **C. Appino**, F. Vinai, R. Sethi  
*"Magnetic characterization and interaction modeling of zerovalent iron nanoparticles for the remediation of contaminated aquifers"*  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, Vol. 9 (5); pp. 3210-3218 (2009).
3. **C. Appino**, F. Fiorillo  
*"A model for the reversible magnetization in amorphous alloys"*  
JOURNAL OF APPLIED PHYSICS, Vol. 76 (9); pp. 5371-5379 (1994).
4. **C. Appino**, G. Bertotti, O. Bottauscio, F. Fiorillo, P. Tiberto, D. Binesti, J. P. Ducreux, M. Chiampi, M. Repetto  
*"Power losses in thick steel laminations with hysteresis"*  
JOURNAL OF APPLIED PHYSICS, Vol. 79 (8); pp. 4575-4577 (1996).
5. **C. Appino**, M. Valsania, V. Basso  
*"A vector hysteresis model including domain wall motion and coherent rotation"*  
PHYSICA B (CONDENSED MATTER), Vol. 275; pp. 103-106 (2000)

## FURTHER INFORMATION

He taught courses in physics and materials science at Politecnico di Torino, Università di Torino and Università del Piemonte Orientale.

Collaboration with the SATIE-ENS laboratory of CNRS (UniverSud), Cachan (France).