

CURRICULUM di FRANCESCO PRIOLÒ

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FORMAZIONE

Laureato in Fisica con 110/110 e la lode nel 1985 all’Università di Catania, dopo la laurea ha effettuato uno stage presso la Fredrik-Schiller Universitat di Jena (Germania) e nel 1989 ha ottenuto il titolo di dottore di ricerca. In questo periodo ha ricevuto il *Graduate Student Award* della *Materials Research Society* a Boston per i suoi contributi alle transizioni di fase indotte da fasci ionici. Dopo un periodo di ricerca presso i *Bell Laboratories* di Murray Hill (USA), ed un periodo di collaborazione con la *STMicroelectronics*, nel 1991 è entrato in organico presso l’Università degli Studi di Catania.
E’ professore ordinario di Fisica della Materia (settore scientifico-disciplinare FIS\03 – settore concorsuale 02/B1) presso il Dipartimento di Fisica e Astronomia dell’Università degli Studi di Catania dal 1 Febbraio 2001.

INCARICHI ISTITUZIONALI

Nel Febbraio 2004 è stato fondatore, promotore e primo direttore del *Centro di Ricerca e Sviluppo MATIS* dell’INFM (*Center of Materials and Technologies for Information, communication & Solar Energy*) oggi confluito nel CNR come Unità Operativa di Supporto dell’Istituto IMM – www.matis.imm.cnr.it. E’ *Delegato Responsabile* della UOS Catania-Università del CNR-IMM che oggi conta circa 20 dipendenti ed altrettanti associati.

Presidente della *European Materials Research Society* (Strasburgo – www.european-mrs.org) per il periodo 2009-2011 ed attualmente membro della sua *Executive Committee*, *Editor* della rivista scientifica internazionale *Applied Physics A* (Springer, Heidelberg – www.springer.com), membro dell’*Editorial Board* di *Applied Physics Reviews* (*American Institute of Physics* – www.apr.aip.org), rappresentante italiano nella *Materials Science & Engineering Expert Committee* della *European Science Foundation* (www.esf.org), membro del *Management Board* di *Alliance for Materials – Italia* (A4M_it), membro del Gruppo di Esperti Valutatori (GEV) dell’area 02 (Scienze Fisiche) per conto dell’ANVUR nell’ambito della VQR (Valutazione della Qualità della Ricerca), Francesco Priolo è anche membro di svariati comitati scientifici ed *advisory boards* nazionali ed internazionali.

All’interno dell’Università di Catania è stato membro eletto del Senato Accademico (2010-2012), Presidente della Commissione Ricerca di Ateneo (2009-2012), Presidente della Commissione Scientifica di Area 02-Scienze Fisiche (2007-2010), Delegato del Rettore alle Relazioni Internazionali (2009-2012), Coordinatore del Dottorato di Ricerca in Scienza dei Materiali (2000-2005). Oggi è **Presidente della Scuola Superiore di Catania per la formazione di eccellenza** (www.scuolasuperiorecatania.it) e membro del Presidio di Qualità (www.unict.it/content/presidio-di-qualita).

E’ stato commissario in svariati concorsi e valutazioni comparative presso le Università italiane ed il CNR per ruoli di Borsista, Assegnista, Tecnologo, Ricercatore, Professore Associato, Professore Ordinario e Direttore d’Istituto (profili di Fisica della Materia e interdisciplinari). Agisce regolarmente da membro di commissione, in qualità di esperto internazionale, per l’assunzione di professori, la progressione in carriera, l’attribuzione di premi prestigiosi ed il giudizio su progetti scientifici su richiesta di svariati Ministeri, Università ed Agenzie straniere di diverse nazioni tra cui: Australia, Austria, Belgio, Canada, Corea del Sud, Croazia, Danimarca, Francia, Olanda, Norvegia, Regno Unito, Taiwan, USA.

ATTIVITA' DIDATTICA

Francesco Priolo ha insegnato tra l'altro corsi di:
Fisica Generale 2,
Fisica dei Semiconduttori,
Dispositivi Elettronici,
Fotonica e Nanotecnologie.

E' stato relatore di numerosissime tesi di laurea, Tutor di una ventina di tesi di dottorato di ricerca e Tutor di svariati Allievi della Scuola Superiore di Catania.

E' stato frequente membro di **commissione** per il conseguimento del titolo di dottore di ricerca in diverse università italiane e, in qualità di esperto internazionale, è stato membro di Commissione per l'Esame finale di Dottorato di Ricerca presso le seguenti Università straniere:
Royal Institute of Technology di Stoccolma (Svezia -1999),
Università di Linkoping (Svezia - 2000),
Technische Universität Dresden (Germania - 2002),
van der Waals-Zeeman Institute -Università di Amsterdam (Olanda - 2003),
Université de Paris XI, Orsay (Francia - 2005),
Università di Aarhus (Danimarca - 2007),
Università di Oslo (Norvegia – 2008).

ATTIVITA' DI RICERCA

I principali campi di ricerca riguardano le nanotecnologie e la scienza dei materiali per l'elettronica, la fotonica, ed il fotovoltaico. In questi campi è autore di oltre 300 pubblicazioni su riviste scientifiche internazionali (ISI), autore di un libro (*Light emitting Silicon for Microphotonics*, edito dalla Springer), Editor di 10 libri, detentore di 3 brevetti internazionali, frequente relatore a congressi scientifici nazionali ed internazionali (circa 100 relazioni su invito), nonché organizzatore di una ventina di congressi scientifici internazionali. Francesco Priolo detiene un indice di Hirsch di 45 e la sua produzione scientifica conta complessivamente oltre 10.000 citazioni.

Per l'attività di ricerca ha ricevuto il Premio Campisano (2001) dell'Istituto Nazionale per la Fisica della Materia, riservato a ricercatori di età inferiore ai 40 anni che si siano distinti per l'eccellenza scientifica nella crescita e caratterizzazione di materiali innovativi ed il 2 Giugno 2001, in occasione della Festa della Repubblica, il Presidente della Repubblica Carlo Azeglio Ciampi, *motu proprio*, gli ha conferito l'onoreficienza di Cavaliere della Repubblica per meriti scientifici.

I risultati scientifici conseguiti dal suo gruppo nell'ambito della fotonica a base di silicio, ed in particolare la scoperta di guadagno ottico in nanostrutture di silicio (Nature vol. 408, p. 440 (2000) con oltre 1500 citazioni), hanno ottenuto notevole risonanza anche a livello di stampa internazionale (es. The Economist, Financial Times). Recentemente è stato invitato a scrivere un lavoro di review su "Silicon Nanostructures for Photonics and Photovoltaics" per Nature Nanotechnology (Nature Nanotech. 9, p.19 (2014)).

Francesco Priolo ha agito da *consultant* per la Commissione Europea ed è stato responsabile scientifico di un elevato numero di progetti di ricerca (tra cui PRIN, FIRB, FAR, PON, ed Europei).

**Pubblicazioni su
Riviste Scientifiche Internazionali**

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- 2) M.G. Grimaldi, F. Priolo, P. Baeri, E. Rimini
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- 3) M.G. Grimaldi, F. Priolo, P. Baeri, E. Rimini, A.G. Cullis, N.G. Chew
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- 4) F. Priolo, J.L. Batstone, J.M. Poate, J. Linnros, D.C. Jacobson
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- 5) F. Priolo, J.M. Poate, D.C. Jacobson, J. Linnros, J.L. Batstone, S.U. Campisano
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- 6) F. Priolo, A. La Ferla, E. Rimini
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- 7) J.M. Poate, J. Linnros, F. Priolo, D.C. Jacobson, J.L. Batstone, M.O. Thompson
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- 10) P. Baeri, M.G. Grimaldi, F. Priolo, E. Rimini, A.G. Cullis, N.G. Chew
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- 12) A. La Ferla, F. Priolo, C. Spinella, E. Rimini, F. Baroetto, G. Ferla
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- 13) F. Priolo, J.M. Poate, D.C. Jacobson, J.L. Batstone, S.U. Campisano
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- 14) P. Baeri, M.G. Grimaldi, F. Priolo, A.G. Cullis, N.G. Chew
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- 16) F. Priolo, C. Spinella, E. Rimini, G. Ferla
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- 17) C. Spinella, F. Priolo, E. Rimini, G. Ferla
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- 20) F. Priolo, C. Spinella, E. Rimini
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