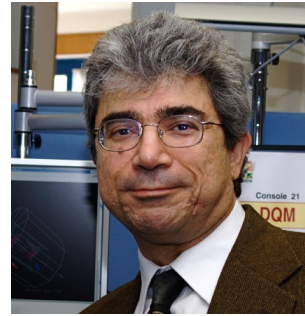


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Professional positions:

- Aug 1997 – present: **Senior Research Physicist**, PH Department, **CERN**
- Feb 2002 – present: **Professor**, Physics Department, **Univ. of Athens**
- Feb 1997 – Feb 2002: **Professor**, Physics Department, **MIT**
- Jul 1995 – Jan 1997: **Associate Professor**, Physics Department, **MIT**
- Jul 1991 – Jun 1995: **Assistant Professor**, Physics Department, **MIT**
- Nov 1990 – Jun 1991: **Wilson Fellow**, **FNAL**, Batavia, Illinois, USA
- Jul 1988 – Oct 1990: **Scientific Associate**, **CERN**, Geneva, Switzerland

Education:

- Feb 1985 – Jun 1988: **Ph.D.** in Physics, **MIT**
- Sep 1981 – Jun 1984: **B.Sc.** in Physics, **MIT**

Areas of scientific interest:

- Experimental Particle Physics, and in particular **hadron collider physics for 30 years**. Particular emphasis on: electroweak interaction and symmetry breaking; studies of heavy flavors (top and bottom quarks); and physics beyond the Standard Model (e.g. search for supersymmetry).
- Design of electronics and computing systems, especially **trigger and data acquisition systems**.

Physics experience/contributions:

- **LHC–CMS**: Searches for physics Beyond the SM (supersymmetry): inclusive searches with 0-lepton, 1-lepton, 2-leptons; plus targeted searches for “natural SUSY” (light top squark, gauginos). Also Electroweak physics (W and Z polarization)
- **Tevatron–CDF**: Evidence for the top quark with soft-lepton b tags; Observation of all-hadronic top with two b tags. B physics; establishment of new flavor tagging method (Same-Side Tag); application to B_d mixing, first measurement of CP violation parameter $\sin 2\beta$; first observation of order-of-magnitude larger-than-SM cross section for prompt quarkonia production; rare B decays (B_d , B_s).
- **SppS–UA1**: Jet physics (2, 3, 4-jet cross-sections); Searches for dijet resonances (e.g. axiguons). Search for Compositeness via angular distributions; Search for the top quark; measurement of b-quark cross section in multiple channels (μ +jet, $\mu\mu$, J/ψ).

Trigger/DAQ experience/contributions:

- Aug 1997 – Feb 2000: **Co-responsible** for the **R&D on the combined event-builder and High Level Trigger farm** of the CMS DAQ system.
- Jan 1991 – Dec 1996: Responsible for the design, development and installation of the **Event Builder of CDF**. This was the first system that utilized commercial network technology for a detector DAQ system. Eventually **responsibilities extended to the Level-3 trigger**.
- Jul 1988 – Nov 1990: **Prototype of a parallel computing engine (PPCS)** in collaboration with the **IBM research centers in Yorktown Heights (US) and Böblingen (Germany)**. **Novel interface between the IBM-360 channel and the VME bus**. In both cases, responsible for software development.
- Jul 1986 – Dec 1989: **key member** of team that pioneered the exploitation of custom-designed yet fully programmable computers (the **IBM3081/E emulators**) in UA1. One of the first examples of integration of processor farms in large particle physics experiments, both for offline and online use.

Positions of responsibility – CMS-wide:

- Jan 2014 – present: **Deputy Spokesperson**.
- Jan 2012 – Dec 2013: **Chairperson, Publications Committee**. Reorganized PubComm from a single body into a number of PubComm boards, with significant independence and some global, CMS-wide guidelines. We submitted ~200 papers to journals during this period.
- Jan 2007 – Dec 2009: **Physics Coordinator**. Coordinated creation of physics groups, approval system. With PubComm chair put in place publication system. Oversaw the physics program of the experiment and in particular the preparations for physics analyses at the startup of the LHC.

- Jan 2005 – Dec 2006: **Project Manager of “CPT” project**. CPT included the computing, software and “PRS” (physics) areas in CMS. During this period, CMS delivered two Volumes of the Physics TDR, presented the Computing TDR, and completed the first combined Computing Software Analysis challenge. We also moved to new core software, away from Objectivity and ODBMS to ROOT.
- Jan 2001 – Dec 2004: **Project Manager of “Physics Reconstruction and Selection” project**. PRS was charged with the development of the reconstruction and selection software of the experiment in OO software, as well as for the physics analysis.
- Jan 2001 – Dec 2002: **Editor of the TDR** of the Data Acquisition and High-Level Trigger system.
- Jul 1994 – Dec 2008: **Chair of the Institution Board of the Trigger/DAQ project**. The board had representation from 20 universities and research institutes.
- Jul 1994 – Jan 2003: **US_CMS: “L2 manager” for the Data Acquisition (DAQ) system**, appointed by the US Department of Energy (DOE). Member of the management board of US_CMS.

Positions of responsibility outside CMS:

- Jan 2010 – present: **Director of the Institute of Accelerating Systems and Applications, Athens**, a non-profit research institute which belongs jointly to the University of Athens and the National Technical University of Athens.
- Jan 2005 – Dec 2006: **Group leader of CERN (PH Department) CMS group** on “General Software and Physics” (CMG). The group consisted of 12 staff, 20 fellows and students.
- **Oct 2002 – Mar 2006: Coordinator** of the Research Training Network, of the European Union, “Physics Reconstruction and Selection at the LHC”.
- Apr 1998 – Feb 1999: **Physics Coordinator of the Large Electron Positron (LEP) accelerator**. Responsible for interfacing between the four LEP experiments and the machine.
- Aug 1994 – Dec 1996: **Co-convener of the B-physics analysis group of the CDF experiment**. MIT group (under my guidance) performed seven analyses on B physics (established new flavor-tagging method, numerous mixing and CP violation measurements).

General scientific work:

- **European Commission: Marie-Curie Advisory Group** (2013).
- **European Physics Society (EPS): Chairperson of the High Energy and Particle Physics Board** (2011–2013); secretary of the HEPP Board (2009–2011) and member (2002–2009).
- **Member of the High Energy Physics Advisory Panel [HEPAP]** of the US Department of Energy and National Science Foundation (Jan 2009 – Dec 2011).
- **Editor** for: Annual Reviews of Nuclear and Particle Science (2015–); Journal for Instrumentation (JINST), in 2006–2013; International Journal of Modern Physics (IJMPA) – since 2011. Referee of essentially all major (Western) international journals (except PLB) in High Energy Physics.
- **Referee** for programs for Belgium, Cyprus, France, Greece, European Commission, European Research Council, India, Italy, Netherlands, Spain, Switzerland, Taiwan, UK, US (DOE and NSF). Member of several visiting committees, scientific councils, dean’s and departmental advisory groups.
- Member of **International Advisory Committee, Organizing committee** and convener of sessions at **international symposia/conferences** (few examples: ICHEP, EPS HEP, CHEP, Beauty series, IEEE NSS, European Physical Society, American Physical Society, Hadron Collider Physics, Physics at LHC, LHCP, several schools, etc.)
- **Member of CERN committees:** advisory Board of “CERN Courier” (1998–2004); LHC Computing Board (1998–2001); CERN-PH referee (LEP papers; 2001-2010); member, selection board for new research physicists; also of several PH department selection boards.
- More than 40 plenary and invited talks at international conferences; two conference summaries.

Teaching:

- PhDs supervised (in reverse chronological order): A. Agapitos, L. Gouskos, G. Karapostoli, C. Papadimitropoulos, C.N.P. Ngan, D. Vuvinic, K. Kelly, P. Maksimovic, T. Daniels, W. Bokhari. Currently supervising two PhD students.
- Supervisor of 30 undergraduate theses (12 at MIT, 18 at UoA).
- Undergraduate courses at Univ. of Athens and MIT: Laboratories for Physics I and II, Quantum Mechanics I & II, Introduction to Nuclear and Particle Physics, Physics I (Mechanics), Physics II (Electromagnetism), Laboratories. Buechner prize at MIT for teaching Physics II to advanced undergrads.
- Graduate courses at UoA/MIT: Particle Physics, Special topics in Particle Physics.
- Lectures at more than 15 international schools (topics: Particle Physics; Triggering; Data Acquisition Systems and Computing; Physics of Hadron Colliders; the LHC in general). Lectures at CERN (Academic Training; Summer Students, other student fora).

Public Understanding of Science:

- Several outreach talks to students and wider audiences; Interviews with newspapers and magazines; appearance on TV and radio stations. Author of popular articles.
- One of the early members of the CMS outreach group, still participating at an advisory level.