

# Pablo Molinero-Fernández

Ph.D. in Electrical Engineering

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## FIELD OF INTEREST

**Mobile Internet and high-performance networking**

## CURRENT POSITION

**4/04-Present Senior Product Engineer**, NetSpira Networks Madrid, Spain  
Specification and technical presales of advanced support nodes for the core network of mobile Internet. These nodes allow the operator to analyze, control, differentiate and charge data traffic in its network. NetSpira Networks is a *startup* that is the technical leader in the market of content-based charging for GPRS/UMTS, CDMA, WiFi and ADSL networks.

## EXPERIENCE

**7/03-3/04 Senior Software Engineer**, NetSpira Networks Madrid, Spain  
Design and implementation of advanced support nodes for the core network of mobile Internet. These nodes are used to charge, route, control and classify data traffic based on the content type.

**1/04-5/04 Visiting Professor**, Saint Louis University Madrid, Spain  
Part-time Professor in the Madrid program of this American University. Taught the course EE101 *Introduction to Electrical Engineering*. Classes were in English and students came from four different continents.

**9/97-6/03 Research Assistantship**, Stanford University, Palo Alto, California  
With Prof. Nick McKeown. I conducted research in high-performance networking: e.g., a system simulator for the Tiny-Tera (a 1 Tbps switch <http://klamath.stanford.edu/tiny-tera/>), a study of reliable multicast, Internet traffic analysis, and a comparison of circuit and packet switching in the Internet (<http://klamath.stanford.edu/TCPSwitching/>). During my stay at Stanford I also helped write a grant proposal that received \$7.5M from NSF (<http://news-service.stanford.edu/news/2003/october1/mckeown-101.html>). I was also the system administrator for the research group.

**6/00-8/00 Summer Associate**, McKinsey&Company Madrid, Spain  
Did management consulting for an Internet Service Provider and a Satellite TV provider.

**4/98-1/99 Co-founder of Calendus Software**, Stanford University, Palo Alto, California  
Developed a web- and email-based calendar system used by over 200 student organizations and departments at Stanford University (<http://klamath.stanford.edu/~molinero/calendus/>).

**2/96-8/97 Research Assistantship**, Stanford University, Palo Alto, California  
With Prof. Fouad Tobagi. I studied protocol IEEE 802.1p GARP/GMRP for selective multicasting in LANs (<http://klamath.stanford.edu/~molinero/papers/garp-gmrp-timers-1997.pdf>).

**6/97-9/97 Development Intern**, 3Com Corp. Santa Clara, California  
Designed and developed a videoconference gateway between the H.323 and H.320 standards for Computer-Telephony Integration in LAN and ISDN networks.

**6/96-9/96 Development Intern**, Hewlett-Packard Laboratories Palo Alto, California  
Designed and developed a Video-on-Demand system for streaming MPEG-1 videos using Windows NT and several clients with a hardware decoder card.

**10/94-7/95 Research Assistant**, ETSIT, Systems, Signals and Radio Communications Dept. Madrid, Spain  
With Prof. Carlos Muñoz. Ported the XTP transport protocol for multimedia to Windows NT.

**1/94-7/94 Engineer Thesis**, ENST, Computer Science Department Paris, France  
Analyzed different operating systems for their support for multimedia applications.

**8/93-12/93 Research Intern**, Siemens AG, R&D Center Munich, Germany  
Compared various multimedia transport protocols for distributed systems in high-speed networks.

