Dr. PETRE DINI
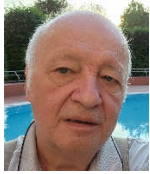
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Scientific activity at a glance

- (partially) retired | (mostly) volunteering | enjoying (affordable) traveling
- Past topics: mathematics, VLSI, formal languages, protocol V&V, real-time embedded systems, nomadic code, active routing, software arch, (AT&T) IMS, (Cisco) IOS, Router Fault Manager, Router Performance Manager, etc.
- Academics: U de Montreal, Concordia U, McGill U,| (AT&T) Stanford, (Cisco) Berkeley, China Space Agency Center - Beijing | Cisco-IBM Coop Dir., AT&T-Cisco Coop. Dir.
- Industrial/research: CRIM (R&D), AT&T, Cisco Systems, Inc., Intl Bodies (ITU, TMF, IETF, IEEE)
- Salient: About 15 US Cisco patents, (co)supervisor: 38 Master&PhD
- Current hobbies: brain-activities, self-x, systems/apps adaptation, conflicts in decision policies, crowd-in-the-middle, reflective (twin) architectures, new trends in software development (apps)
- Open: how can a piece of software realize by itself (or by any other means) that a copy of that piece was (? illegally) made somewhere [see Cloud, Quantum Computing]

Applied Traditional (read-True vs Generative) AI

- Petre: **1980/90**
  - Fuzzy-based resource allocation, Automatic knowledge incorporation, CAD/CAM Expert Systems,
  - Real-time embedded systems, Space/time thinking and processing, Multi-layers context-based meaning
- Petre: **1992**: The First ITC Conference (Montreal), tutoring systems, self-adaptable Q&A professor-student systems (advanced Chatbots)
- Petre: **1997** Dartmouth, Mobile Intelligent Agents (intelligent grasshopping pooling)
- Petre: **1997-2000**: Nomadic code, Mobile agents, (Grasshopper EU project)
- Petre: **2000-2010**: Autonomous systems, Policy-driven systems, Intelligent systems (Patents, ITU, TMF, IEEE)
  - Capturing emerging properties, Variable pooling frequency, Self-adaptable decision polices, Reflexive-policies (Digital-Twins)
  - Routers embedded-AI (temporal logic in Syslog processing, policy-driven signal processing)
  - AI-driven Selection of Content Servers based on Current Server Availability (dynamic availability, heuristics, real-time)
- Petre: 2010 – ongoing: Panels, Keynotes, Tutorials on ANI, AGI, ASI)
  - Coordinator of IARIA Scientific Programs