Thallium (**CsI(TI)**); Computed Tomography (**CT**); Depth of Interaction (**DOI**); Digital Rectal Examination (**DRE**); Digital Signal Processing (**DSP**); Electronic Design Automation (**EDA**); Food Drug Administration (**FDA**); Field Programmable Gate Array (**FPGA**); Fluorodeoxyglucose (**FDG**); First-In-First-Out (**FIFO**); Field Of View (**FOV**); Gallium Arsenic (**GaAs**); General Electric (**GE**); Gross Domestic Product (**GDP**); Health Care Financing Administration (**HCFA**); Health Maintenance Organization (**HMO**); Intellectual Property (**IP**); Line of Response (**LOR**); Lutetium orthosilicate (**LSO**); Multiply Accumulation Unit (**MAC**); Magnetic Resonance Imaging (**MRI**); Thallium-activated Sodium Iodide (**NaI(TI)**); National Center for Health Statistics (**NCHS**); National Cancer Institute (**NCI**); National Health care Expenditures (**NHE**); Positron Emission Tomography (**PET**); Printed Circuit Board (**PCB**); Pulse Height Discrimination (**PHD**); Prostate Specific Antigen (**PSA**); Pulse Shape Discriminator (**PSD**); Surveillance, Epidemiology, and End Results (**SEER**); System-On-a-Chip (**SOC**); Superconducting Super Collider (**SSC**); Time-to-Digital converter (**TDC**); United States (**U.S.**); Yttrium Orthosilicate (**YSO**).

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About the author:

Dario Crosetto has collaborated for the past twenty years in extensive physics experiments at the European Center for Particle Physics (CERN) in Geneva and at the Superconducting Super Collider Laboratory (SSCL) in Texas, U.S. He has designed the critical part of the electronics (recognizing particles arriving at million events per second) for experiments costing up to half a billion dollars (see the Gammas Electrons and Muons Technical Design Report –GEM TDR- at www.3d-computing.com/pb/gem-tdr.pdf and [68], [69]). He was designated principal investigator of government grants, the largest of which was $750,000. He was responsible for the implementation of an Application Specific Integrated Circuit (ASIC) for a physics experiment (thousands of those ASICs are now in use). He has designed a DSP parallel processing system for the trigger of a physics experiment. This same design was implemented in VME and subsequently entered into the commercial market, where it was used by a German company in applications for quality control in lamination processes. He improved the electronics of PET and other applications for medical imaging devices during the past ten years.

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