

in capturing and measuring very accurately the characteristics of the possible “good events”, the less radiation is needed and the more chances there are to recognize abnormal metabolisms.

## Acronyms

ACS:	American Cancer Society
ALICE:	A Large Ion Collider experiment at CERN LHC
APD:	Avalanche Photodiode
ATLAS:	One of the four HEP experiments at CERN LHC
ASIC:	Application Specific Integrated Circuit
BGO:	Bismuth Germanate crystal
BNL:	Brookhaven National Laboratory
CDC:	Centers for Disease Control and Prevention
CDF:	Collider Detector at Fermilab
CERN:	European Center for Particle Physics
CMS:	Compact Muon Solenoid experiment at CERN LHC
CT:	Computed Tomography
DESY:	Research Laboratory for Particle Physics – Germany
DOI:	Depth of Interaction
EMFCSC:	Ettore Majorana Foundation Center for Scientific Culture
FDA:	Food and Drugs Administration
FDG:	Fluorodeoxyglucose
FERMILAB:	Fermi National Accelerator Laboratory
FPGA:	Field Programmable Gate Array
FOV:	Field of View
GEM:	Gammas Electrons and Muons Collaboration at SSC
HEP:	High Energy Physics
ICSC:	International Center for Scientific Culture – World Laboratory
IEEE:	Institute of Electrical and Electronics Engineers
KeV:	Kilo electron volt
LIF:	Light-Induced Fluorescence spectroscopy
LHC:	Large Hadron Collider at CERN
LHCb:	Large Hadron Collider Beauty experiment at CERN LHC
LOR:	Line of Response
LSO:	Lutetium Oxyorthosilicate crystal
MIC:	Medical Imaging Conference
MRI:	Magnetic Resonance Imaging
NCI:	National Cancer Institute
NRE:	Non Recurrent Engineering
NSS:	Nuclear Science Symposium
PAP Smear:	Papanicolaou test (checks for changes in the cells of cervix)
PET:	Positron Emission Tomography. (From Greek: Tomography = cuts, or slices of images of the body)
PMT:	Photomultiplier (Transducers converting light into electrical signal)
PSA:	Prostate Specific Antigen
SDC:	Solenoidal Detector Collaboration at SSC
SPECT:	Single Photon Emission Computed Tomography
SSC:	Superconducting Super Collider - Texas
TIR:	Thermal Infrared;
VME:	Computer bus and cards standard
WFS:	World Federation of Scientists

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