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NUCLEAR METHODS IN MEDICINE

David M Wolfe

(University of New Mexico, USA)

Physicists have created remarkably sophisticated instruments for the performance of experiments. With variable phase lags many of these have become useful in technology. In the medical field NMD techniques have become commonplace under the rubric of Magnetic Resonance Imaging. Particle physics has developed sophisticated detectors for both charged and neutral particles. Many of these also have been adapted to medical uses. In both radiology and nuclear medicine, pixel detectors based on designs originating at large-scale colliders, are becoming highly useful in replacing film and NaI as the primary means of X-ray and γ -ray detection. Coupled with high-speed work stations, these new techniques allow exciting new imaging modalities. Many of these are based on the handling of digital images originally developed for astronomy. Thus, once again, fundamental science is making large contributions to the development of technology.

In this talk, various examples of developments in digital mammography and digital detectors for nuclear medicine will be given. The possibilities for telemedicine will be discussed