

## Development of Medical Imaging Physics in China

Shanglian Bao

The Beijing City Key Lab of Medical Physics and Engineering, Peking University,  
Beijing 100871, P.R. China. [bao@pku.edu.cn](mailto:bao@pku.edu.cn)

After a well attended international meeting in Medical Physics in 1981 in Beijing, and the formation of a medical physics community, attention was focused on teaching the students in medical physics. The program of medical imaging physics for master and PhD degree in China was started in 1994 in Peking University. The Institute of Heavy Ion Physics in the University redirected its research interest in the physics of nuclear medicine, magnetic resonance imaging, X-ray imaging as well as the technologies of medical imaging processing and medical imaging information integration for tumor early diagnosis. Recently, research and teaching include topics related to the treatment planning system of radiotherapy and the imaging guided interventional system. Since 2005, other institutions, such as Tsinghua University, Wuhan University, also started the programs for master degree students. The Society of Medical Physics under the China Physics College was also founded in 2007. The new organization is working closely with the Chinese Society of Medical Physics under the Chinese Society of Biomedical Engineering. The Regulation No. 46 issued by the Health Minister of China in June, 2005 has defined the medical physicist positions in radiology, nuclear medicine, and radiotherapy departments in Chinese Hospitals. But, there are not enough qualified medical physicists working in hospitals yet. There is no established method to assist the hospitals to find out if a physicist is qualified to perform the medical physics responsibilities. The image guided radiotherapy procedures and digital imaging and multi-slice CT technology demand closer cooperation between the medical imaging physicists, radiologists and radiation oncologists. The efforts on international exchange program for radiotherapy medical physicists produced many qualified medical physicists over many years in the Cancer Institute Hospital of the Chinese Academy of Medical Science under the direction of Prof. Yim in H.U. Also in Beijing, medical imaging physicist training was started in 1996, and again in 2001. In 2007, the AAPM-IOMP's short course in Diagnostic Imaging Medical Physics, like previous training programs, was held in Peking University. At this time, the need to create a formal Board Certification mechanism for medical imaging physicists in China exists.