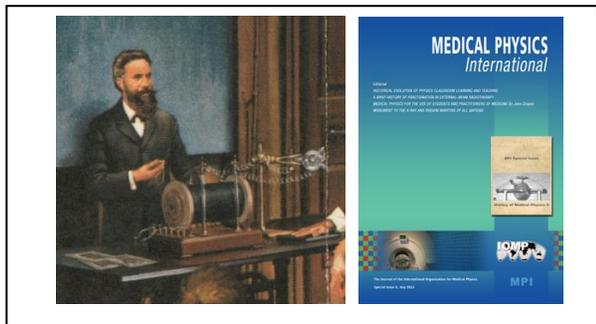


MEDICAL PHYSICS INTERNATIONAL HISTORY EDITION

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Abstract— This article describes briefly the History Editions of the Medical Physics International Journal.



The medical physics profession has an extensive and dynamic history and heritage that is the foundation of who we are today. The objective of the journal, Medical Physics International History Edition series is to provide all medical physicists and related professionals with the opportunity to know and appreciate our background consisting of scientific discoveries and the development of technology and procedures that is a major component of modern medicine as it is practiced today. This has been along with and supported by the development of the medical physics profession with educational programs and dedicated scientific and professional organizations in all regions of the world.

Although physics and physical principles had been applied in a variety of medical procedures over the years it was the event shown here that can be considered as the origin of medical physics and the medical physics profession as we know it today.

In 1895 a physicist, Prof. Wilhelm Roentgen, not only discovered a “new kind of radiation”, but he also quickly conducted extensive research to determine its characteristics and, in the lecture and demonstration shown here, introduced x-ray and medical imaging to the world. It was the physicists in the various countries who had the knowledge, and often the equipment to conduct x-ray imaging procedures and begin collaboration with the medical doctors. From that time on, physicists have been leaders in the development of the many modern imaging modalities (CT, MRI, Mammography, Ultrasound, and

several Radionuclide Imaging methods.) With the discovery of the biological effects of ionizing radiation on human tissues the several methods of radiation therapy were developed and planning and optimizing clinical procedures for individual patients is performed by physicists around the world.

This is our history and heritage.

The journal, Medical Physics International History Edition, was first published in 2018 as a project described in the MPI Journal 2017, vol.5, No1, p. 68-6 . The Founding Co-Editors, Slavik Tabakov and Perry Sprawls plan and organize each Edition with articles authored by medical physicists from throughout the international medical physics community.

From Special Issue 3 (in 2020) the Editors are: Slavik Tabakov, Perry Sprawls and Geoff Ibbott. From its 1st issue to the current 8th Issue the MPI History Edition series have published 960 pages with historical materials, including many photographs, diagrams and references.

Many of the authors published in the MPI History Edition are medical physicists with many years of experience that coincides with some of the major developments in medical imaging and radiation oncology. These authors often provide a unique and valuable perspective based on their personal experiences and observations.

The articles published so far can be read here:

[*ROENTGEN'S INVESTIGATION DETERMINING THE CHARACTERISTICS OF X-RADIATION](#)

Diagnostic Imaging

[*X-RAY TUBES DEVELOPMENT - IOMP HISTORY OF MEDICAL PHYSICS](#)

[*FILM-SCREEN RADIOGRAPHY RECEPTOR DEVELOPMENT A HISTORICAL PERSPECTIVE](#)

[*FLUOROSCOPIC TECHNOLOGY FROM 1895 TO 2019](#)

DRIVERS: PHYSICS AND PHYSIOLOGY

- *THE SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS IN MAMMOGRAPHY A CONTINUING QUEST FOR VISIBILITY
- *REVIEW OF THE PHYSICS OF MAMMOGRAPHY
- *HISTORY OF DENTAL RADIOGRAPHY: EVOLUTION OF 2D AND 3D IMAGING MODALITIES
- *THE HISTORY OF CONTRAST MEDIA DEVELOPMENT IN X-RAY DIAGNOSTIC RADIOLOGY
- *THE MANY STEPS AND EVOLUTION IN THE DEVELOPMENT OF COMPUTED TOMOGRAPHY
- *TECHNOLOGY AND IMAGING METHODS, THE QUEST FOR ENHANCED VISIBILITY THE FIRST FIFTY YEARS

Radiation Therapy

- * A RETROSPECTIVE OF COBALT-60 RADIATION THERAPY: "THE ATOM BOMB THAT SAVES LIVES"
- *A BRIEF HISTORY OF FRACTIONATION IN EXTERNAL-BEAM RADIOTHERAPY -BEAM RADIOTHERAPY

Ultrasound Physics

- *A HISTORY OF MEDICAL ULTRASOUND PHYSICS – INTRODUCTION
- *ULTRASOUND – THE FIRST FIFTY YEARS
- *ULTRASONICS METROLOGY I. THE HISTORY OF THE MEASUREMENT OF ACOUSTIC PRESSURE AND INTENSITY USING HYDROPHONES
- *ULTRASONIC METROLOGY II. THE HISTORY OF THE MEASUREMENT OF ACOUSTIC POWER AND INTENSITY USING RADIATION FORCE
- *ULTRASONICS METROLOGY III. THE DEVELOPMENT OF THERMAL METHODS FOR ULTRASOUND MEASUREMENT
- *A HISTORY OF MEDICAL ULTRASOUND PHYSICS: PART II – INTRODUCTION
- *HISTORY OF MEDICAL ULTRASOUND

*THE DIASONOGRAPH STORY

- *HEWLETT PACKARD - INNOVATIONS THAT TRANSFORMED DIAGNOSTIC ULTRASOUND IMAGING
- *HISTORY OF DOPPLER ULTRASOUND
- *A HISTORY OF HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) THERAPY
- *APPENDIX: THE DIASONOGRAPH STORY

Medical Physics Education

- *HISTORY OF MEDICAL PHYSICS E-LEARNING INTRODUCTION AND FIRST ACTIVITIES
- *HISTORY OF MEDICAL PHYSICS EDUCATION AND TRAINING IN CENTRAL AND EASTERN EUROPE – FIRST CONFERENCES, PROJECTS AND MSC COURSES
- *HISTORICAL EVOLUTION OF PHYSICS CLASSROOM LEARNING AND TEACHING
- *MEDICAL PHYSICS FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE
By John Draper, 1885

The X-Ray and Radium Martyrs

- * MONUMENT TO THE X-RAY AND RADIUM MARTYRS OF ALL NATIONS

Development of Medical Physics Around the World

- *MEDICAL PHYSICS DEVELOPMENT IN AFRICA – STATUS, EDUCATION, CHALLENGES, FUTURE
- *MEDICAL PHYSICS DEVELOPMENT IN SOUTH-EAST ASIAN FEDERATION OF ORGANIZATIONS FOR MEDICAL PHYSICS (SEAFOMP): 2000 - 2020

History of the IOMP

*IOMP HISTORY – ACTIVITY DEVELOPMENT AND MAIN DOCUMENTS

*A HISTORY OF THE INTERNATIONAL ORGANIZATION FOR MEDICAL PHYSICS – 50 YEARS

ANNIVERSARY – PART I (Reprint from MPI 2013)

*A HISTORY OF THE INTERNATIONAL ORGANIZATION FOR MEDICAL PHYSICS – 50 YEARS

ANNIVERSARY – PART II (Reprint from MPI 2014)

*HISTORY AND ACHIEVEMENTS OF THE IOMP IN THE PERIOD 2012-2022

*ANNEX: IOMP HISTORY TABLES

Medical Physics International History Edition continues with up to two publications each year adding to the extensive collection of articles listed above.

Over the years the History articles were welcomed by a number of medical specialists globally. The statistics diagrams from the MPI server give an indication of the global distribution of the History Edition series readers for two separate issues (in 2020 and 2021 – in the field of X-ray Diagnostic Radiology and Ultrasound Imaging).

Currently the MPI History Edition series are preparing a topical issue, celebrating IOMP 60th Anniversary in 2023.

Physicists who are interested in sharing of their interest, experience, and observations to publish additional historical articles can contact the Editors of the MPI History Editions series to select appropriate topics for consideration.

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