



14th National Congress of the Australian Institute of Physics

Adelaide University, South Australia:
December 10 — 15, 2000



**Driving Technology Through Discovery,
Understanding and Innovation**

INDIVIDUAL CONFERENCE PROGRAM

VERSION 2
(Excludes plenary sessions)

To find an author, or topic, select the
binoculars button

MEDICAL PHYSICS (MP)

Thursday, December 14, 2000

11:00 am — 12:30 pm VENUE: NORTH DINING Chairperson: Eva Bezak

- 11:00 am Mr Jeremy BOOTH Royal Adelaide Hospital
500 *The effect of variable fractional doses on rectum complications*
- 11:20 am Dr Plamen Ch. IVANOV Boston University
501 *Fractal and multifractal approaches to human heartbeat dynamics*
- 11:40 am Mr Guilin LIU Department of Medical Physics, Royal Adelaide Hospital
502 *Linear accelerator mechanical radiation ISO centre assesment with an EP*
- 12:00 pm Dr Gil VELLA University of Sydney
503 *The effect of arterial perfusion on the measured ultrasound induced heating in a fetal skull bone phantom*
- 12:20 pm Dr Michael JACKSON Royal Prince Alfred Hospital
504 *Australian National Proton Facility*

2:00 pm — 3:30 pm VENUE: NORTH DINING Chairperson: Gill Vella

- 2:00 pm Ms Trang TRAN Adelaide University
505 *Comparisions of two ferrous-sulphate gels for high image reconstruction using an optical scanning system*
- 2:20 pm Dr Bhaskar MUKHERJEE Australian Nuclear Science Technology Organisation
506 *Cosmic radiation dosimetry of Australian air crew and passengers using superheated bubble dosimeter and miniature PIN diode detector*
- 2:40 pm Dr Ian MACLEAN Australian Communications Authority
507 *Do mobile phones cause brain cancer?*
- 3:00 pm Dr Alfio PARISI University of Southern Queensland
508 *Spectral, Broadband and Personal Solar UV Measurements at a Sub--Tropical Latitude*

4:00 pm — 5:30 pm VENUE: NORTH DINING Chairperson: Ian Maclean

- 4:00 pm Mr Setayesh BEHIN-AIN Adelaide University
509 *Enhanced Monte Carlo simulation techniques used in modeling early tumour detection*
- 4:20 pm Dr Eva BEZAK Royal Adelaide Hospital
510 *Monte Carlo simulations of proton energy deposition at the distal fall-off of the spread out Bragg peak in tissue*

**4:20 pm — 5:30 pm POSTER SESSION
VENUE: GAMES, LEVEL 5**

- TF 156** Dr Aidan BYRNE Australian National University
Production of Terbium-149,152 by heavy ion reactions
- TF 157** Dr Aidan BYRNE Australian National University
A versatile composite material for fast neutron shielding
- TF 158** Mrs Loredana MARCU University of Adelaide
Fractionation and delivery schedules in combined radiotherapy-cisplatin for head and neck cancer

Thursday, December 14, 2000

4:20 pm — 5:30 pm **MEDICAL PHYSICS (MP)**
POSTER SESSION

TF 159 Mr Bayu PURNOMO University of South Australia
*The evaluation of bioeffect treatment planning using
neural network analysis*