

CURRICULUM VITAE

Georgios Anagnostopoulos

Medical Physicist, MSc, PhD

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PERSONAL INFORMATION

Surname Anagnostopoulos
Name Georgios
Date of birth October 15, 1974
Place of birth Athens, Greece
Citizenship Greek
Marital status Married

PROFESSIONAL EXPERIENCE

06/2017- to date Head of the Medical Physics Department at the German Oncology Center, Cyprus

09/2015- 05/2017 Medical Physicist at NZ Medical Ltd in cooperation with the Athens Medical Centre, Greece

10/2012- 08/2015 Medical Physicist at NZ- Medical Ltd. and Radiation Protection Officer in the Radiation Oncology Department in the Central Clinic of Athens, Greece

12/2007- 10/2012 Medical Physicist in the Radiation Oncology Department at the Metropolitan Hospital of Athens, Greece

08/2000- 11/2007 Medical Physicist in the Department of Medical Physics and Engineering at the Radiation Oncology Clinic of Klinikum Offenbach, Germany

03/2002 Radiation Protection Officer License for External Beam Radiotherapy and Brachytherapy (Strahlenschutzbeauftragte, Federal Ministry of Health in the Land of Hessen), Germany

04/2001 Professional Medical Physicist License (Medizinphysikexpert, Fachanerkennung) (German Association of Medical Physics, DGMP), Germany

09/1998- 07/2000 Practical Medical Physics trainee and DLR Scientific Research grant in the Department of Medical Physics and

Engineering at the Radiation Oncology Clinic of Klinikum
Offenbach, Germany

Short description of professional experience

I. German Oncology Center

- Head of the Medical Physics Department
- Radiation Protection Officer for Radiation Therapy
- Acceptance testing, commissioning and development of periodical QA procedures for two LINACS (ELEKTA VersaHD and ELEKTA Synergy) (one of them capable for stereotactic radiation treatments, VersaHD), an HDR brachytherapy (ELEKTA microSelectron v3) unit and a CT Simulator (GE Optima 580)
- VMAT/IMRT and SRS/SRT/SBRT treatment planning with Elekta Monaco 5.11.02 TPS
- SRS and SBRT treatment planning with Elekta Monaco 5.11.02 TPS
- CT and/or MR- based brachytherapy treatment planning with the Elekta Oncentra Brachytherapy 4.5.3 and the US- based Oncentra Prostate TPS
- QA procedures supervisor for external beam Radiation Therapy and Brachytherapy as well as for the CT Simulator and the LINAC IGRT system
- End-to-end dosimetry and geometrical accuracy of the dynamic radiosurgery procedure (SRS) for single isocenter multiple brain metastases treatment, organized by ELEKTA (with the usage of the MONACO treatment planning system) with the aid of anthropomorphic head phantoms filled with polymer gel and equipped with Gafchromic film inserts (RTSafe phantoms)
- Development and supervision of patient related pre- treatment as well as EPID based real time external beam dosimetry QA
- Stereotactic prostate biopsy with the MedCom Biopsee system
- QA procedures supervisor of the CT for diagnostic radiology

II. NZ-Medical Ltd and Athens Medical Group

- HDR Brachytherapy Treatment Planning (ELEKTA Oncentra Brachytherapy and ELEKTA Oncentra Prostate) and Quality Assurance Program Development and Execution (ELEKTA Nucletron microSelectron HDR afterloader)
- Medical Physics related software development and testing (Eurostars CEIROS project and SWIFT consortium)
- Development and supervision of the Monte Carlo aided dosimetry with the GATE and MCNP 6.1 code
- Research on the dosimetric characteristics of specific radioactive sources used in brachytherapy
- Investigation of the impact of patient inhomogeneities of CT based data as well as the impact of high atomic number heterogeneities on the dosimetry of the brachytherapy treatment planning systems

III. NZ-Medical Ltd and Central Clinic of Athens

- Senior Medical Physicist's Administration and Radiation Protection Officer's duties.
- HDR Brachytherapy Treatment Planning (ELEKTA Oncentra Brachytherapy and ELEKTA Oncentra Prostate) and Quality Assurance Program Development and Execution (ELEKTA Nucletron microSelectron HDR afterloader)

IV. Metropolitan Hospital of Athens

- Commissioning of 2 LINACs for the VARIAN Eclipse and BRAINLAB iPLAN Treatment Planning Systems
- Acceptance testing and periodic QA of the Brainlab ExacTrac patient monitoring system for the frameless stereotactic treatments
- Stereotactic Radiotherapy (SRT) and Radiosurgery (SRS) QA
- LINAC periodic QA (one VARIAN 2100C X6/18MV with the embedded VARIAN OBI CBCT system and one BRAINLAB Novalis type LINAC X6/18MV with the BRAINLAB 6D couch and the ExacTrac X-ray system)
- IMRT-IGRT and 3D Conformal Radiation Therapy treatment planning (VARIAN Eclipse treatment planning system)
- Patient related Quality Assurance with diodes, PTW ionization chambers, PTW RW-3 phantoms and PTW 2D array seven29
- Radiation Therapy Simulation with VARIAN Acuity
- VARIAN ARIA network administration
- MR based HDR brachytherapy treatment planning with the ELEKTA Nucletron Oncentra Brachytherapy TPS
- Commissioning of the ELEKTA Nucletron Oncentra Brachytherapy TPS
- HDR Brachytherapy QA of the ELEKTA microSelectron afterloader v.3

V. Klinikum Offenbach

- 3D Conformal Radiation Therapy treatment planning (PLATO and HELAX treatment planning systems) and treatment plan verification
- LINACs (one SIEMENS KD2 Mevatron X6/23 MV and e⁻ 5, 7, 9, 12, 15 MeV and one SIEMENS MD2 Mevatron X6/10 MV and e⁻ 5, 7, 9, 12, 15 MeV) QA
- Radiation Protection Officer in External Beam Radiotherapy and Brachytherapy
- SIEMENS LANTIS network administration
- Beam Data Collection and Verification for the Nucletron PLATO and MDS Nordion HELAX TPS
- CT- and Ultrasound guided- HDR brachytherapy treatment planning with the Nucletron Oncentra Brachytherapy/ Oncentra Prostate and Nucletron PLATO TPS
- Ultrasound guided LDR SeedSelectron prostate brachytherapy planning with Nucletron SPOT TPS
- Development and supervision of the Monte Carlo aided dosimetry with MCNP4c/MCNPX
- Development and supervision of the thermoluminescence dosimetry programme for the LINAC QA and the dosimetry of ¹⁹²Ir HDR sources and ¹²⁵I seeds
- SIEMENS Somatom CT QA
- SIEMENS Simview Simulator QA
- Nuclear Medicine Philips AXIS and Picker PRISM SPECT camera QA

- SIEMENS ZLC 370 gamma camera QA

EDUCATION

02/2006	PhD degree at the Ruprecht-Karls Universitaet Heidelberg (Grade: 1, magna cum laude), Germany
11/2001- 11/2005	External PhD student at the Ruprecht-Karls Universitaet Heidelberg, Germany
05/2001	MSc degree in Medical Physics
04/2000- 05/2001	Post graduate student in Medical Physics at the Academy of Postgraduate Studies at the Ruprecht-Karls Universitaet Heidelberg, Germany
06/1997	Bachelor's degree in Physics (Grade 7.0/10, very good)
09/1992- 06/1997	Physics studies in the University of Athens, Greece

PhD THESIS

02/2006	“Analysis of the influence of patient body anatomy on the dosimetry and development of an analytical dose calculation model in the ¹⁹² Ir HDR brachytherapy”, Ruprecht-Karls Universitaet Heidelberg
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SCIENTIFIC PUBLICATIONS

1. E. Pappas, E. Zoros, **G. Anagnostopoulos**, G. Antorkas, E. Pantelis, P. Karaiskos „Multi-detector dosimetry for QA in advanced radiotherapy modalities: a comparative study“ *Radiotherapy and Oncology* 127: S462-463, **2018**
2. **G. Anagnostopoulos**, M. Andrassy, D. Baltas „The Bebig Valencia-type skin applicators: Dosimetric study and implementation of a dosimetric hybrid technique“ *Brachytherapy* 16(5): 1044-1056, **2017**
3. E. Pantelis, P. Papagiannis, **G. Anagnostopoulos**, D. Baltas „New ¹²⁵I brachytherapy source IsoSeed I125.S17plus: Monte Carlo dosimetry simulation and comparison to sources of similar design“ *Journal of Contemporary Brachytherapy* 5(4): 240-249, **2013**
4. E. Pappas, R. Hammoud, G. Kagadis, A. Sharif, A. Bakas, P. Papadimitroulas, **G. Anagnostopoulos**, I. Kantemiris, G. Loudos, N. Al Hammadi „SU-E-T-546 On the evaluation of GATE Monte Carlo toolkit performance for the dosimetry of Ir-192 and I-125 brachytherapy sources“ *Medical Physics* 40, 331, **2013**

5. I. Nikolova, D. Baltas, **G. Anagnostopoulos**, K. Zink „Monte Carlo Untersuchung des Einflusses der Kathetermaterialien auf die Dosisverteilung in der Umgebung von HDR-Brachytherapiestrahlern“ Wissenschaftliche 39. Jahrestagung Medizinphysik 2008 in Oldenburg, **2008**
6. N. Tselis, C. Kolotas, G. Birn, S. Roedigger, I. Fillipowicz, M. Kontova, G. Fountzilias, P. Selviaridis, D. Baltas, R. Heyd, **G. Anagnostopoulos**, N. Zamboglou „CT-guided interstitial HDR brachytherapy for recurrent glioblastoma multiforme“ *Strahlentherapie und Onkologie* 183(10), 563-570, **2007**
7. **G. Anagnostopoulos**, P. Papagiannis, D. Baltas „Monte Carlo Untersuchung des Einflusses der Kathetermaterialien auf die Dosisverteilung in der Umgebung von HDR-Brachytherapiestrahlern“ (*DGMP Tagungsbuch*) Drei Ländertagung Medizinphysik 2007 in Bern Schweiz: 251, **2007**
8. D. Baltas, **G. Anagnostopoulos**, D. Gebrebrahan, N. Milickovic, N. Zamboglou “Fehleranalyse und Genauigkeitsanforderungen bei der HDR- Brachytherapie des Prostatakarzinoms“, *Strahlentherapie und Onkologie*, Sondernummer 1: 115-116, **2007**
9. P Papagiannis, L. Sakelliou, **G. Anagnostopoulos** and D. Baltas „One the dose rate constant of the selectSeed 125I interstitial brachytherapy seed“ *Medical Physics* 33(5): 1522-1523, **2006**
10. E. Pantelis, P. Papagiannis, P. Karaiskos, A. Angelopoulos, **G. Anagnostopoulos**, D. Baltas, N. Zamboglou and L. Sakelliou “The effect of finite patient dimensions and tissue inhomogeneities on dosimetry planning of ^{192}Ir HDR breast brachytherapy: A Monte Carlo dose verification study”, *International Journal of Radiation Oncology Biology and Physics*, 61(5), 1596-1602, **2005**
11. **G. Anagnostopoulos**, D. Baltas, E. Pantelis, P. Papagiannis and L. Sakelliou “The effect of patient inhomogeneities in oesophageal ^{192}Ir HDR brachytherapy: a Monte Carlo and analytical dosimetry study”, *Physics in Medicine and Biology*, 49, 2675-2685, **2004**.
12. E. Pantelis, P. Papagiannis, **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, P. Sandilos and L. Sakelliou, “Evaluation of a TG-43 compliant analytical dosimetry model in clinical ^{192}Ir HDR brachytherapy treatment planning and assessment of the significance of source position and catheter reconstruction uncertainties”, *Physics in Medicine and Biology*, 49, 55-67, **2004**.
13. T. Martin, D. Baltas, R. Kurek, S. Roeddiger, M. Kontova, **G. Anagnostopoulos**, T. Dannenberg, T. Buhleier, G. Skazikis, U. Tunn and N. Zamboglou, “3-D conformal HDR brachytherapy as monotherapy for localized prostate cancer: a pilot study”, *Strahlentherapie und Onkologie*, 4, 225-231, **2004**.
14. D. Baltas, **G. Anagnostopoulos**, T. Martin, “In response to Drs. Duggan, Bucci and Kron”, Letters to the the editor, *International Journal Radiation Oncology Biology and Physics* 59 (3), 911-912, **2004**
15. **G. Anagnostopoulos**, D. Baltas, A. Geretschlaeger, T. Martin, P. Papagiannis, N. Tselis and N. Zamboglou “*In vivo* thermoluminescence dosimetry dose verification of transperineal ^{192}Ir high-dose-rate brachytherapy using CT- based planning for the treatment of prostate cancer”, *International Journal Radiation Oncology Biology and Physics*, 57 (4), 1183-1191, **2003**.
16. **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, V. Pantelis, P. Papagiannis and L. Sakelliou “Ein analytisches Dosisberechnungsmodell für die ^{192}Ir HDR Brachytherapie Bestrahlungsplanung als Schritt zur Korrektur von Inhomogenitäten”, *Medizinische Physik (DGMP 2003 Tagungsbuch)*, 8-9, **2003**.
17. **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, V. Pantelis, P. Papagiannis and L. Sakelliou “A simple analytical dosimetry for ^{192}Ir brachytherapy treatment planning as a step towards incorporating inhomogeneity corrections”, *Physica Medica* (book of abstracts), Vol. XIX N. 1, 88, **2003**.

18. **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, E. Pantelis, P. Papagiannis and L. Sakelliou “An analytical dosimetry model as a step towards accounting for inhomogeneities and bounded geometries in ^{192}Ir brachytherapy treatment planning”, *Physics in Medicine and Biology*, 48, 1625-1647, **2003**.
19. P. Kipouros, P. Karaiskos, M. Kozicki, P. Baras, I. Seimenis, , **G. Anagnostopoulos**, A. Angelopoulos and P. Sandilos, “Vipar polymer gel- MRI dosimetry for 3D dose verification in modern radiotherapy”, *Physica Medica* (book of abstracts), Vol. XIX N. 1, 83, **2003**.
20. P. Kipouros, P. Papagiannis, L. Sakelliou, P. Karaiskos, P. Sandilos, P. Baras, I. Seimenis, M. Kozicki, **G. Anagnostopoulos** and D. Baltas, “3D dose verification in ^{192}Ir HDR prostate monotherapy using polymer gels and MRI”, *Medical Physics*, 30(8), 2031-2039, **2003**.
21. P. Kipouros, **G. Anagnostopoulos**, A. Angelopoulos, D. Baltas, P. Baras, A. Drolapas, P. Karaiskos, E. Pantelis, P. Papagiannis, L. Sakelliou and I. Seimenis “Dosimetric calculations and VIPAR polymer gel dosimetry close to the microSelectron HDR”, *Zeitschrift für Medizinische Physik*, 12, 252-259, **2002**.
22. **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, P. Sandilos, P. Papagiannis and L. Sakelliou, “Thermoluminescent dosimetry of the selectSeed ^{125}I interstitial brachytherapy seed”, *Medical Physics*, 29(5), 709-716, **2002**.
23. **G. Anagnostopoulos**, D. Baltas, P. Karaiskos, S. Papageorgiou, P. Papagiannis and L. Sakelliou, “Monte Carlo und TLD-Dosimetrie eines neuen ^{125}I Seed-Designs (selecSeed)”, *Medizinische Physik (DGMP 2001 Tagungsbuch)*, 287-288, **2001**.
24. P. Karaiskos, P. Papagiannis, L. Sakelliou, **G. Anagnostopoulos** and D. Baltas “Monte Carlo dosimetry of the selectSeed ^{125}I interstitial brachytherapy seed”, *Medical Physics*, 28(8), 1753-1760, **2001**.

PRESENTATIONS

1. ‘Multi-detector dosimetry for commissioning of advanced radiotherapy modalities: a comparative study’ **ESTRO 37 Conference, Barcelona, Spain 05/2018**
2. ‘The Medical Physicist’s role in the QA program and the treatment planning in the contemporary HDR Brachytherapy’ **Cyprus Medical Physics Association annual meeting, Nicosia 02/2018**
3. ‘Novel Valencia-type skin applicators: Dosimetry and implementation of a TG-43 hybrid technique, **ESTRO 36 Vienna, Austria 05/2017**
4. ‘The spectrum of modern radiotherapy’ from the aspect of the Medical Physicist, Round Table: Modern Radiotherapy, **12th Panhellenic Radiation Oncology Conference, Killini, Greece 05/2012**
5. Evidence based Radiation Oncology in Gynaecological Malignancies, Practical Session: HDR Image-Guided Brachytherapy, Regional **IAEA Training Course** under 6/019/010 **11/2011**
6. Specific case reports with the implementation of the High Tech Radiotherapy, Metropolitan Round Table, **11th Panhellenic Radiation Oncology Conference, Chania, Greece 05/2011**
7. Modern HDR brachytherapy techniques, clinical applications, 7th scientific workshop of Clinical Radiation Oncology, Greek Radiation Oncology Group, Kalambaka, Greece **11/2009**
8. “Ein analytisches Dosisberechnungsmodell für die ^{192}Ir HDR Brachytherapie Bestrahlungsplanung als Schritt zur Korrektur von Inhomogenitäten”, **DGMP Tagung 2003** Universität Heidelberg, *Γερμανία*, **10/2003**.
9. “A simple analytical dosimetry for ^{192}Ir brachytherapy treatment planning as a step towards incorporating inhomogeneity corrections”, **VIII EFOMP Congress in Medical Physics and Engineering, Eindhoven, The Netherlands, 05/2003**

10. "Vipar polymer gel- MRI dosimetry for 3D dose verification in modern radiotherapy", VIII **EFOMP Congress in Medical Physics** and Engineering, Eindhoven, The Netherlands, **05/2003**
11. "Monte Carlo und TLD-Dosimetrie eines neuen ¹²⁵I Seed-Designs (selectSeed)", **DGMP Tagung** 2001, Technische Universität Berlin, Germany, **10/2001**

SCIENTIFIC JOURNAL REVIEWER

- Medical Physics
- Brachytherapy

SEMINARS and WORKSHOPS

05/2017	3DCRT, IMRT and VMAT treatment planning with the MONACO TPS, Elekta Linac House, Crawley, UK
09/2012	Clinical practice and implementation of Image-Guided Stereotactic Body Radiotherapy (SBRT), ESTRO teaching course, Wuerzburg, Germany
11/2011	Evidence based Radiation Oncology in Gynaecological Malignancies, Regional IAEA Training Course under 6/019/010, Metropolitan Hospital, Athens
05/2010	IMRT and other conformal techniques, ESTRO teaching course, Ghent, Belgium
11/2003	Intermediate/Advanced Monte Carlo N Particles (MCNP), Imperial College, London, UK
01/2002- 02/2002	Seed Selectron & SPOT Training course for ¹²⁵ I seed LDR prostate brachytherapy, Klinikum Offenbach, Germany
09/2002	Introduction to Monte Carlo N Particles (MCNP), University of Stuttgart, Germany
11/2000- 03/2002	Distance learning C/C++ programming courses (Grade: 2.2, good) (Hamburger Akademie für Fernstudien), Germany
05/2000	Spezialkurs fuer Strahlenschutz, Haus der Technik , Essen, Germany

12/1999

Grundkurs fuer Strahlenschutz, Haus der Technik , Essen,
Germany

04/1996- 05/1996

ERASMUS European Studies Program (Pädagogische
Akademie des Bundes und Forschungszentrum
Seibersdorf), Vienna, Austria

COMPUTER SKILLS/ LANGUAGES

Operating systems

Windows, UNIX, Linux

Programming languages

C/C++, Pascal, FORTRAN

Computing applications

MATLAB, Origin, MS-Word/Excel/Power Point

Languages

Greek (mother tongue), German (Full professional
proficiency), English (Full professional proficiency),
French (elementary)

MEMBERSHIPS

- Hellenic Association of Medical Physicists (HAMP)
- Cypriot Medical Physics Association (CYMPA)
- Deutsche Gesellschaft für Medizinische Physik (DGMP)