

Curriculum Vitae - Academic

Georgios A. Kounis

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Academic Background

Doctorate of Philosophy, Health Sciences, April 2008

University of Crete, School of Health Sciences, Division of Ophthalmology

Dissertation: *Repeatability of placido based corneal topographic systems.*

Advisor: Pallikaris G. Ioannis

Bachelor of Science, Physics; **Minor:** Atomic, Molecular Physics, Optoelectronics and Lasers, June 1997.

University of Crete, School of Sciences and Engineering, Physics Department.

Thesis: *Corneal hydration monitoring by means of Laser Induced Breakdown spectroscopy.*

Professional Licensees/Certifications

User Certification for the Aesculap MEL 60 ArF Excimer laser 193 nm in Vardinoyianneion Eye Institute of Crete. **1997-1999**.

User Certification for the AUTONOMUS LADARVision ArF Excimer laser 193 nm in Vardinoyianneion Eye Institute of Crete. **1999-2001**.

User Certification for the Aesculap MEL 70 ArF Excimer laser 193 nm in Vardinoyianneion Eye Institute of Crete. **2001-2003**.

User Certification for the topographic systems: a) EyeSys 2000, b)TechnoMed C-Scan, c)Orbtech Orbscan, d)TOMEY TMS 2N. **1998-present**

User Certification for the Ultralink LCC ARTEMIS II VHF Digital Ultrasound Arc B-Scanner. **2003-present**

User Certification for the CustomVis Solid State laser Pulzar Z1 213 nm in Vardinoyianneion Eye Institute of Crete. **2005-present**.

Engineer for service on Pulzar Z1 Solid state laser of CustomVis since **2005-present**

Academic/Teaching Experience

Tutor, in preliminary High School courses. **1997-2001**

Lectures on Electronics, Physics, mathematics and Cobol computer language.

Laboratory Assistant, Physics laboratory for Engineers and Electronic Engineers, Technical Institute of Crete **2005-2006**

Pre-run experiments and graded laboratory write-ups. Demonstrated techniques and assisted students in everyday laboratory routines for physics.

Laboratory Assistant, Physiological optics and Applications I, University of Crete, Interdisciplinary Master of Sc. in “Vision And Optics” **2004-present**

Pre-run experiments and produced detailed protocols for new experiments. Graded laboratory write-ups. Demonstrated techniques and assisted students in everyday laboratory routines laser, corneal topography and optometry.

Laboratory Assistant, Physiological optics and Applications II, University of Crete, Interdisciplinary Master of Sc. in “Vision And Optics” **2004-present**

Pre-run experiments and produced detailed protocols for new experiments. Graded laboratory write-ups. Demonstrated techniques and assisted students in everyday laboratory routines laser, corneal topography and optometry.

Associate-In, Quality of Image and Process of Optical Signal, University of Crete, Interdisciplinary Master of Sc. in “Vision And Optics” **2004-present**
Lectures. Mini-Projects presentations and write-ups

Tutor, Corneal topography and Lasers in Refractive Surgery. IOTC Mini Fellowships in Refractive Surgery. University of Crete. **1999-present**
Lectures and demonstrations of topographic systems and lasers.

Tutor, Computer Lessons for the acquisition of European Computer Driving License. Private Institute. 2001-2002

Technical and specialized skills

Experince in the use of experimental lasers in UV, visible and infrared (Excimers, Nd:Yag, Erb:YAG)

Experience in various spectroscopic techniques and equipment (Fiber optics, Lenses, spectroscopers, photonmultipliers, monochromators, oscilloscopes, XY scanners).

Experience in development, design and construction of prototype microsurgery tools and microoptoelectronics devices.(use of Zemax for analysis)

Experience in software creation using Microsoft Visual Basic, Pascal, Fortran, Cobol, Matlab, and Labview).

Experience in statistical analysis clinical data. (Use of SPSS and SAS software).

Related/Other Experience

Very good knowledge of Microsoft office, Macromedia Flash, Photoshop, and Corel Draw

Experience in the editing and development of audiovisual material using relative software as Adobe Premiere.

Experience in composition of patents.

European Representative for the CustmVis Company since September 2007-present

Grants

40,000.00 € PhD. grant for the research program with title “Development of system for the estimation of the corneal hydration in real time using spectroscopic techniques”.

Grand was provided from the General Secretariat for Research and Technology of Greece 7/1997-7-2001

Service

Academic

Composition and economic administration of the “New Postgraduate Programs” granted from the Ministry of Education with total budget of 280,000.00 € **8/2002**

Composition and economic administration of the “New Postgraduate Programs-Equipment for the endorsement of the New Postgraduate Programs” granted from the Ministry of Education with total budget of 38,000.00 €. **8/2002**

Participation as technical assistant/consultant (statistical analysis and nomogram creation) on the research program with title “Conductive Keratoplasty: Development and study of spot distribution for the correction of hyperopic astigmatism” **2001**

Participation as technical assistant/consultant (statistical analysis and laser user) on the research program with title “Optimization of the operational parameters for the separation of the corneal epithelium from the corneal stroma and evaluation of its clinical application for the correction of myopia” **2002**

Academic Research/Interests

Corneal Hydration and refractive surgery (spectroscopic evaluation of corneal hydration).

Ocular rigidity and choroidal circulation (development of devices for the measurement of ocular rigidity).

Corneal topography- accuracy and reproducibility. Corneal asphericity.

Statistical analysis of refractive data using vector analysis techniques. Development of nomograms for laser systems used in refractive surgery.

VHF ultrasound devices and depiction of the cornea and anterior chamber.

Patents

Inventors: Pallikaris I, Tsilimbaris M, Kounis G, Kymionis G, Ginis H.

Title: Device and methods for the increase of ocular elasticity and the prevention of macular degeneration

Ap. Num.: 09/938,051 Ap. Date: 22 Aug 2001

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahml%2FPTO%2Fsrc_hnum.htm&r=1&f=G&l=50&s1=6,786,927.PN.&OS=PN/6,786,927&RS=PN/6,786,927

Foreign Language Abilities/ Skills

English: Fluently

French: bad

Research/ Scholarly Activities

Journal Articles

1. Pallikaris I.G., Ginis H.S. Kounis G.A. Anglos D., Papazoglou T.G., Naoumidis L.P. *Corneal hydration monitoring by means of Laser Induced Breakdown spectroscopy.* J Ref Sur 1998; 14(6): 655-660. (11 citation)
2. Tsilimbaris M., Ginis H, Kounis G. Kimionis G., Pallikaris I. *Attenuation of ocular wall pulsation in eyes containing a gas bubble after vitrectomy.* Curr Eye Res 2002 Mar; 24(3):202-205. (0 citation)
3. Kymionis GD, Siganos CS, Kounis G, Astyrakakis N, Kalyvianaki MI, Pallikaris IG. *Management of post-LASIK corneal ectasia with Intacs inserts: one-year results.* Arch Ophthalmol. 2003 Mar;121(3):322-6. (41citation)
4. Pallikaris IG, Kymionis GD, Ginis HS, Kounis GA, Tsilimbaris MK. *Ocular rigidity in living human eyes.* Invest Ophthalmol Vis Sci. 2005 Feb;46(2):409-14. (36 citation)
5. Pallikaris IG, Kymionis GD, Ginis HS, Kounis GA, Tsilimbaris MK *Ocular rigidity in patients with age-related macular degeneration.* American Journal of Ophthalmology 2006, Volume 141, Issue 4, Pages 611-611. (6 citation)
6. Naoumidi T, Kounis GA, Pallikaris IG. *Two-year follow-up of conductive keratoplasty for the treatment of hyperopic astigmatism.* Journal of Cataract & Refractive Surgery 2006, Volume 32, Issue 5, Pages 732-741. (6 citation)
7. M. Kalyvianaki, V. Katsanevaki, D. Kavroulaki, G. Kounis, E. Detorakis, I. Pallikaris. *Comparison of Corneal Sensitivity and Tear Function Following Ep LASIK or Laser In Situ Keratomileusis for Myopia.* American Journal of Ophthalmology 2006, Volume 142, Issue 4, Pages 669-671. (5 citation)
8. G. Kymionis, N. Tsiklis, A. Pallikaris, G. Kounis, V. Diakonis, N. Astyrakakis, C. Siganos. *Long-term Follow-up of Intacs for Post-LASIK Corneal Ectasia.* Ophthalmology 2006, Volume 113, Issue 11, Pages 1909-1917. (14 citation)
9. Tsiklis NS, Kymionis GD, Kounis GA, Pallikaris AI, Diakonis VF, Charisis S, Markomanolakis MM, Pallikaris IG. *One-year results of photorefractive keratectomy and laser in situ keratomileusis for myopia using a 213 nm*

- wavelength solid-state laser.* J Cataract Refract Surg. 2007 Jun;33(6):971-7. (1 citation)
10. Tsiklis NS, Kymionis GD, Pallikaris AI, Diakonis VF, Ginis HS, Kounis GA, Panagopoulou SI, Pallikaris IG. *Endothelial cell density after photorefractive keratectomy for moderate myopia using a 213 nm solid-state laser system.* Cataract Refract Surg. 2007 Nov;33(11):1866-70.
 11. Kounis GA, Tsilimbaris MK, Kymionis GD, Ginis HS, Pallikaris IG. *Estimating variability in placido-based topographic systems.* Optom Vis Sci. 2007 Oct;84(10):962-8.
 12. Kymionis GD, Diakonis VF, Kounis G, Charisis S, Bouzoukis D, Ginis H, Yoo S, Tsilimbaris M, Pallikaris IG. *Ocular rigidity evaluation after photorefractive keratectomy: an experimental study.* J Refract Surg. 2008 Feb;24(2):173-7.
 13. Tsiklis NS, Kymionis GD, Kounis GA, Naoumidi II, Pallikaris IG. *Photorefractive keratectomy using solid state laser 213 nm and excimer laser 193 nm: a randomized, contralateral, comparative, experimental study.* Invest Ophthalmol Vis Sci. 2008 Apr;49(4):1415-20.
 14. Kymionis GD, Diakonis VF, Kounis G, Bouzoukis DI, Gkenos E, Ginis H, Yoo SH, Pallikaris IG. *Effect of excimer laser repetition rate on outcomes after photorefractive keratectomy.* J Cataract Refract Surg. 2008 Jun;34(6):916-9.
 15. Charisis SK, Ginis HS, Kounis GA, Tsilimbaris MK. *Tono-Pen XL tonometry during application of a suction ring in rabbits.* BMC Ophthalmol. 2008 Jul 30;8:14.
 16. Kalyvianaki MI, Kymionis GD, Kounis GA, Panagopoulou SI, Grentzelos MA, Pallikaris IG. *Comparison of Epi-LASIK and off-flap Epi-LASIK for the treatment of low and moderate myopia.* Ophthalmology. 2008 Dec;115(12):2174-80.

Conferences proceedings

1. 2nd GR-I International Conference on New Laser Technologies and applications. 1998
Pallikaris, H.S. Ginis, D. Anglos, T.G. Papazoglou, **G.A. Kounis**, L.P. Naoumidis.
“Human cornea hydration estimated by Laser Induced Breakdown Spectroscopy (LIBS)”.
2. The Association for Research in Vision and Ophthalmology. (ARVO). 1999
Pallikaris, D. Anglos, T.G. Papazoglou, H.S. Ginis, **G.A. Kounis**, L.P. Naoumidis. *“Spectroscopic estimation of the hydration of corneal models under laser irradiation”.*
3. 4th ESCRS Winter Refractive Surgery Meeting **The Algarve 2000**
G.A. Kounis, M.K. Tsilimbaris, S. Panagopoulou, I.G. Pallikaris. *Repi-Map: A module for detailed repeatability testing of topography systems*
4. Aegean Cornea 2000, Ηράκλειο Κρήτη. *Repi-Map: Detailed reproducibility test for Placido-based (CTS) corneal topographic systems.* G.A. Kounis, M.K. Tsilimbaris, I.G. Pallikaris
5. 34 Greek Congress of Ophthalmology, Thessaloniki 2000. Repi-Map : A method for the detailed repeatability check of placido-based topographic systems. **G.A. Kounis**, M.K. Tsilimbaris, S. I.G. Pallikaris.
6. The Association for Research in Vision and Ophthalmology (ARVO) 2000. Fort Lauderdale, Florida. *Effect of sclerectomies on scleral rigidity* M.K. TSILIMBARIS, I.G. PALLIKARIS, **G.A. KOUNIS**, H. GHINIS
7. The Association for Research in Vision and Ophthalmology (ARVO) 2001. Fort Lauderdale, Florida. Intraocular gas bubble attenuates ocular pulsatility: M.K. TSILIMBARIS, I.G. PALLIKARIS, H.S. GHINIS, G.D. KYMIONIS, **G.A. KOUNIS**
8. EURETINA-European Meeting on Macular and Vitreoretinal Diseases-25-27 May 2001 Germany. Effect of intraocular gas on ocular elasticity and possible

- relation with choroidal blood flow. PALLIKARIS I.G., GINIS H.S, TSILIMPARIS M.K., **KOUNIS G.A.**
9. 4th International Symposium on Ocular Pharmacology and Pharmaceutics – ISOPP Seville , Spain February 28th –March 3rd , 2002. Scleral rigidity and AMD prevention: The airbag concept. Miltiadis Tsilimbaris, Harilaos Ginis, Spyros Giarmenitis, **George Kounis**, George Kymionis, Ioannis Pallikaris.
10. Aegean Retina 2001. Changes in ocular rigidity upon insertion of an intraocular buble.(Eye-airbag). Ioannis G Pallikaris MD, Miltiadis K Tsilimbaris MD, George D Kymionis, MD, PhD, **George A Kounis, MS** . Harilaos Ginis, PhD.
11. American Academy of Ophthalmology 2001 Annual meeting.
Ocular Rigidity in Live Human Eyes. Ioannis G Pallikaris MD, Miltiadis K Tsilimbaris MD, George D Kymionis, MD, PhD, **George A Kounis, MS** . Harilaos Ginis, PhD . Marietta P Karavellas MD.
12. The Association for Research in Vision and Ophthalmology (ARVO) 2002. Fort Lauderdale, Florida. A New Method for the Reproducibility Evaluation of Placido-Based Topographic Systems **G.A. Kounis**, M.K. Tsilimbaris, I.G. Pallikaris
13. The Association for Research in Vision and Ophthalmology (ARVO) 2002. Fort Lauderdale, Florida. Changes In Ocular Rigidity Upon Insertion of an Intraocular Bubble H.S. Ginis, I.G. Pallikaris, M.K. Tsilimbaris, **G.A. Kounis**, G.D. Kymionis
14. Aegean Cornea July 2002. Chalcidiki Greece. A New Method For The Reproducibility Evaluation Of Placido-Based Topographic Systems **G.A. Kounis**, M.K. Tsilimbaris, I.G. Pallikaris
15. Aegean Cornea 2004 & 3rd Aegean Summer School in Visual Optics. W. Peloponnese, Greece
16. The Association for Research in Vision and Ophthalmology (ARVO) 2005. Fort Lauderdale, Florida. Refractive Surgery, Ocular Rigidity and Goldmann Tonometry. T.D. Panagiotoglou, H.S. Ginis, G.D. Kymionis, **G.A. Kounis**, M.K. Tsilimbaris and I.G. Pallikaris

17. American Academy of Ophthalmology 2005. Chicago, USA, 15-18 October 2005. Ocular rigidity in patients with AMD. **G.D. Kymionis**, M. Tsilimbaris, H. Ginis, G. Kounis, I. Pallikaris
18. 38th Greek Congress of Ophthalmology. Mykonos May 2005. Honor for the presentation with title: « Eyeball ocular rigidity measurement». Pallikaris IG, Kymionis G, Ginis H., **Kounis GA**, Tsilimbaris M.
19. 10th ESCRS Refractive Surgery Meeting, Monte Carlo, 10-12 February 2006. Early results after myopic refractive surgery with CustomVis Pulzar laser system. I. Pallikaris, N. Tsiklis, **G.D. Kymionis**, G. Kounis, V.Katsanevaki, N. Astyrakakis
20. The Association for Research in Vision and Ophthalmology (ARVO) 2006. A. Pallikaris, B.F. Diakonis, G.A. Kounis, and M. Tziraki
Central Corneal Thickness Measurements With Heidelberg Retina Tomograph II/Rostock Cornea Module, Artemis, and Ultrasonic Pachymeters.
21. The Association for Research in Vision and Ophthalmology (ARVO) 2006. S.K. Charisis, H.S. Ginis, G.A. Kounis, and M.K. Tsilimbaris
The Effect Of Vacuum Ring Application On Iop In The Living White Rabbit Eye.
22. The Association for Research in Vision and Ophthalmology (ARVO) 2007.
Photorefractive Keratectomy Using Ultraviolet Solid State Laser 213 Nm and Excimer Laser 193 Nm: A Randomized Comparative Experimental Study.
N.S. Tsiklis, G. Kymionis, G. Kounis, V. Diakonis, S. Charisis, S. Yoo, I. Naoumidi, I. Palliakaris.
23. XXV congress of the European Society of cataract and Refractive Surgery, Stockholom, Sweden, 8-12 Semptember 2007. Endothelial cell study after refractive surgery with a solid state (213nm wavelebgth) laser system. N. Tsiklis, **G.D. Kymionis**, A. Pallikaris, V. Diakonis, G. Kounis, I. Pallikaris.
24. Association for Research in Vision and Ophthalmology (ARVO) 2008. A **Mathematical Model for the Dynamic Equilibrium of Intraocular Pressure**

Based on Manometric Measurement in the Living Human Eye. . De
Brouwere, H.S. Ginis, A. Dastiridou, G. Kounis, M. Tsilimbaris, I. Pallikaris.

Book Chapters

1. Myopic Photorefractive Keratectomy using Solid State Laser. N. Tsiklis, **G.D. Kymionis**, G. Kounis, I. Pallikaris. Advanced Surface Ablation Techniques . Ashok Garg. Jaypee Brothers,Medical Publishers,India, Second edition (2007, pp:172-181).
2. Marking the cornea and creation of corneal flap. P. Titze, A. Khouri, **G.D. Kymionis**, G. Kounis, I. Aslanides, I. Pallikaris. LASIK surgery: step by step

References

Ioannis G Pallikaris MD, Ph.D. pallikar@med.uoc.gr
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