



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Stefan G. Stanciu**
Address Splaiul Independentei 313, 060042 Bucharest (Romania)
Phone
E-mail(s) sgstanciu@gmail.com ; stefan.stanciu@cmmip-upb.org
homepage <http://sgstanciu.cmmip.ro>
Nationality Romanian
Date of birth 30/01/1983
Gender Male



Research interests

laser scanning microscopy, scanning probe microscopy, photonics, biophotonics, optics, biomedical engineering, nanoscopy, image acquisition, image processing, computer vision, image fusion, image understanding, algorithm development and optimization, sample preparation, image metrology, applied physics, cellular and molecular biology, advanced materials.

Work experience

Dates	2015 →(present)
Occupation or position held	Principal Investigator
Name and address of employer	Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest
Dates	2012 →(present)
Occupation or position held	Scientific Researcher
Name and address of employer	Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest
Dates	2013
Occupation or position held	SCIEX Research Fellow
Name of employer	Light Microscopy and Screening Center, Swiss Federal Institute of Technology (ETH Zurich)
Dates	2007 – 2011
Occupation or position held	Research Assistant
Name of employer	Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest
Dates	2003 – 2007
Occupation or position held	Research Collaborator
Name of employer	Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest
Dates	2005 – 2006

Occupation or position held	IT Consultant
Name and address of employer	WING Computer Group
Education and training	
Dates	2002 – 2007
Title of qualification awarded	Electronics Engineer
Principal subjects / occupational skills covered	Applied electronics, Information engineering
Name and type of organisation providing education and training	Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest.
Dates	2007 – 2011
Title of qualification awarded	PhD in Applied Electronics
Title of thesis	Image processing and computer vision techniques for enhancing the visualization of Confocal Scanning Laser Microscopy (CSLM) data
Defense committee:	Prof. Alberto Diaspro (Italian Institute of Technology), Prof. Genaro Saavedra (University of Valencia), Prof. Paul Schiopu (University Politehnica of Bucharest)
Name and type of organisation providing education and training	Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest.

PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

Program/Project	Duration
RO-NO-2019-0601: Understanding Membrane Dynamics and their Implications for Cancer with Correlative Optical Nanoscopy and Artificial Intelligence –Project Coordinator (in collaboration with Partner Leader Prof. Harald A . Stenmark, Oslo University Hospital)	2021-2023 (forthcoming)
Project funded by H2020 ATTRACT’s competition for breakthrough technology concepts: Higher-harmonic Generation Microscopy Beyond the Diffraction Barrier based on Re-scan Strategies for Optical Data Acquisition (HARMOPLUS) –Project Coordinator (in collaboration with Partner Leader Prof. Erik Manders, Confocal.nl)	2019-2020
Project funded by H2020 ATTRACT’s competition for breakthrough technology concepts: A novel approach for near-field optical microscopy based on tip-enhanced fluorescence via plasmon resonance energy transfer (TEFPLASNOM) –Project Coordinator (in collaboration with Partner Leader Prof. Loredana Latterini, University of Perugia)	2019-2020
Project funded by the Bureau of International Co-operation of the Chinese Academy of Sciences: Biological Near - field fluorescence microscopic imaging system with functional	2020-2021

nanomaterials -Partner Team Leader (in collaboration with Principal Investigator Assoc. Prof. Fang Yang, Ningbo Institute of Material Technology & Engineering)	
PN-III-P1-1.1-TE-2016-2147: Correlative optical imaging in the far-field and near-field regimes: technical developments and applications (CORIMAG), Principal Investigator	2018-2020
PN-III-P1-1.1-TE-2016-2147: Label-free quantitative microscopy based on second harmonic generation at nanoscale (NANO-SHG), Research Team member	2018-2020
PN-III-P3-3.1-PM-RO-CN-2018-0177: Novel Optical Imaging Approaches for the In-depth Understanding of Advanced Nanostructured Materials and their Interaction with Biological Species (NANOMATBIOIMAGE), Project Director (in collaboration with Co-Principal Investigator Dr. Fang Yang, Ningbo Institute of Material Technology & Engineering, China)	2018-2019
CN: Guangxi Scientific Research And Technology Development Plan: Exploiting the application of single molecule imaging technology in researches of enzyme engineering, Partner Team Leader, Co-Principal Investigator (in collaboration with <i>Prof. Shaomin Yan, Project Director on behalf of Guangxi Academy of Sciences in Nanning, China</i>)	2017-2020
PN-III-P2-2.1-PED-2016: AN EXPERIMENTAL MACHINE INTELLIGENCE FRAMEWORK FOR THE AUTOMATED DIFFERENTIATION OF HEALTHY, DYSPLASTIC AND MALIGNANT TISSUES BASED ON MULTIPHOTON MICROSCOPY DATASETS (MICAND) Project Coordinator (in collaboration with <i>Prof. Mariana Costache, Partner Leader on behalf of "Carol Davila" University of Medicine and Pharmacy in Bucharest</i>)	2017-2018
PN-III-P2-2.1-PED-2016: QUANTITATIVE NANOSCOPY FOR THE CHARACTERIZATION OF BIOLOGICAL TISSUES (Q-NANOBIOT). Research team member	2017-2018
PN-III-P2-2.1-PED-2016: HOLOGRAPHIC ELEMENTS FABRICATED BY MEANS OF TWO PHOTON POLYMERIZATION FOR A DEMONSTRATIVE OPTICAL COMMUNICATIONS MODULE. Research team member	2017-2018
FRAMEWORK FOR BILATERAL SCIENTIFIC COOPERATION ROMANIA – CHINA: INVESTIGATIONS ON THE FUNCTION AND MICRO-STRUCTURE OF THE CELLULOSE SECRETION SYSTEM BY HIGH-RESOLUTION IMAGING TECHNIQUES (CESESYS) Project Director (in collaboration with Co-Principal Investigator Dr. Guang Wu from Guangxi Academy of Sciences in Nanning)	2016-2017

PN-II-RU-TE-2014-4-1803: CORRELATION AND INTEGRATION OF MICROSCOPY AND NANOSCOPY DATA BY ADVANCED COMPUTER VISION METHODS (MICRONANO), - Project Director	2015-2017
POSDRU/159/1.5/S/137390/ POST-DOCTORAL RESEARCH FELLOWSHIP: COMPUTER VISION TECHNIQUES FOR AUTOMATED ANALYSIS AND CORRELATION OF SCANNING LASER AND SCANNING PROBE MICROSCOPY DATA (COVIAC), -PRINCIPAL INVESTIGATOR, (Excellence Award)	2014-2015
CH-SCIEX/ REGISTRATION AND FUSION OF HIGH RESOLUTION IMAGING DATA (IMPLEMENTED AT ETH ZURICH), -PRINCIPAL INVESTIGATOR	2013
PN-II-PT-PCCA/ NEW METHODS AND INVESTIGATIONS PROTOCOLS FOR THE EARLY DIAGNOSIS, EFFICIENT SCREENING, PROGNOSTIC AND THERAPY OF NON-MELANOMA SKIN CANCERS BASED ON EXISTING AND NOVEL MICRO & NANO OPTICAL TOOLS, -SCIENTIFIC MANAGER	2012-2016
EU-CORDIS-FP7/ REAL TIME LABEL FREE NANOSCOPY USING INFRA RED ABSORPTION (LANIR). Research team member	2012-2015
PN-II-PT-PCCA/ INNOVATIVE METHOD AND SYSTEM FOR THE DETECTION OF DRUG EVIDENCE BY PLASMA-LASER ASSISTED MASS SPECTROSCOPY. Research team member	2012-2016
EU-CORDIS-FP7/ ELECTRICALLY MODIFIED BIOMATERIALS SURFACE: FROM ATOMS TO APPLICATIONS, GRANT AGREEMENT (<i>BIOELECTRICSURFACE</i>). Research team member	2008-2011
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-SLOVAKIA. Research team member	2011-2012
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-TURKEY. Research team member	2010-2011
BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-INDIA. Research team member	2007-2009
RO-PNII-IDEI/ DEVELOPMENTS OF NEW INVESTIGATION TECHNIQUES IN SCANNING OPTICAL MICROSCOPY AND THEIR APPLICATIONS. Research team member	2009-2011
RO-PNII/ ACTIVE-ADAPTIVE OPTIC METROLOGY RESEARCH FOR NONSCIENCES AND NANOTECHNOLOGIES FOR ADAPTIVE DIGITAL HOLOGRAPHY. Research team member	2007-2010
PNII/ STUDIES REGARDING INTERACTION MECHANISMS BETWEEN LASER AND	

RADIOFREQUENCY RADIATION WITH SUPERIOR AERODIGESTIVE TISSUES AND THE DEVELOPMENT OF THERAPEUTICAL PROTOCOLS. Research team member	2007-2010
PNII/ STUDIES OF MODIFICATIONS INTRODUCED IN ZIRCONIA, SPINEL AND SiC BY IONIC IMPLANTATION AND THERMAL TREATMENTS BY USING IBA AND OTHER ADVANCED TECHNIQUES. Research team member	2007-2010
PNII/ IMPACT OF ENVIRONMENTAL FACTORS TO THE FORMATION DYNAMICS AND STRUCTURAL BEHAVIOR OF TEMPORARY TEETH. Research team member	2007-2010
RO-CEEX/ DIAGNOSTIC AND PROGNOSTIC IMPLICATIONS OF THE ENDOMICROSCOPIC ASPECT OF THE MICROVASCULARIZATION OF PREMALIGNUM AND MALIGNUM LESIONS OF THE UPPER DIGESTIVE TRACT. Research team member	2006-2008
RO-CEEX/ DEVELOPMENT OF NEW ION SOURCES WITH PLASMA FOR THE EFFICIENT PROCESSING OF METALLIC AND NONMETALLIC SURFACES. Research team member	2006-2008
RO-CEEX/ DIAGNOSTIC AND PROGNOSTIC IMPLICATIONS OF THE ENDOMICROSCOPIC ASPECT OF THE MICROVASCULARIZATION OF PREMALIGNUM AND MALIGNUM LESIONS OF THE UPPER DIGESTIVE TRACT. Research team member	2006-2008
RO-CEEX/ ADVANCED TECHNOLOGIES REGARDING MANUFACTURING POSIBILITIES OF SUBMICRONIC ELEMENTS BY LITOGRAPHIC METHODS (SUBLITO). Research team member	2006-2008
RO-CERES/ EXPERIMENTAL MODEL OF EARLY DIAGNOSIS OF ARTWORK DAMAGE BY LIF. Research team member	2004-2006
RO-RELANSIN/ INTEGRATED SECURITY SISTEM FOR DIFFERENT MILITARY OBJECTIVES. Research team member	2004-2006
RO-CERES/ EXPERIMENTAL MODEL FOR DETERMINING THE CONCENTRATION OF SOLID PARTICLES IN WATER BY USING CONFOCAL SCANNING LASER MICROSCOPY. Research team member	2004-2006

PARTICIPATION IN NETWORKING ACTIONS

COST/ ACTION CA15124 A NEW NETWORK OF EUROPEAN BIOIMAGE ANALYSTS TO ADVANCE LIFE SCIENCE IMAGING (NEUBIAS) – MANAGEMENT COMMITTEE MEMBER; ITC Conference Grants Coordinator	2016-2020
--	-----------

COST/ACTION CA16124 BRILLOUIN LIGHT SCATTERING MICROSPECTROSCOPY FOR BIOLOGICAL AND BIOMEDICAL RESEARCH AND APPLICATIONS (BIOBRILLOUIN)” – MANAGEMENT COMMITTEE MEMBER	2017-2021
COST/ Action CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications (EsSENce) - MANAGEMENT COMMITTEE MEMBER	2020-2024

Reviewed manuscripts for:

Journal of Biophotonics, Computer Methods and Programs in Biomedicine, IEEE Transactions on Systems, Man and Cybernetics: Systems, Sensors, British Journal of Applied Science and Technology, Microscopy Research and Technique, Review of Scientific Instruments, IET Computer Vision, IET Image Processing, Frontiers in Molecular Biosciences, Frontiers in Chemistry, Frontiers in Cellular Neuroscience, PlosOne, Optik, Materials Letters, Journal of Gastroenterology and Hepatology, Scientific Reports, Measurement, Data in Brief, Biomedical Optics Express, Artificial Intelligence in Medicine, OSA Continuum

Editorial appointments:

-Guest Associate editor at the Biomedical Physics Section of Frontiers in Physics and Frontiers in Physiology (Research Topic: “Advances in Label Free Tissue Imaging with Laser Scanning Microscopy Techniques”)

-Guest Associate Editor at the Nanoscience Section of Frontiers in Chemistry (Research Topic: “Recent Trends in Optical and Mechanical Characterization of Nanomaterials”)

-Guest Associate Editor at Scanning (Special Issue: “Novel Scanning Characterization Approaches for the Accurate Understanding and Successful Treatment of Oral and Maxillofacial Pathologies”)

-Topic Editor: Materials, MDPI

Awards:

- Presentation Award of the *The Spanish-Portuguese Meeting for Advanced Optical Microscopy, Bilbao, Spain, 5-7 October, 2016*: Multimodal Imaging of nanostructured materials and biological samples in the far-field and near-field Regimes, S.G. Stanciu, D.E. Tranca, C. Stoichita, R. Hristu, L. Pastorino, J.M. Bueno, C. Ruggiero, A. Antipov, G.A. Stanciu.
- Best Poster Presenter Award of the EuroNanoForum EuroNanoForum 2015, Riga, Latvia, 10-12th of June, 2015: Combined Multimodal Imaging at Micro- and Nanoscale Using Complementary Contrast Mechanisms, S.G. Stanciu, C. Stoichita, R. Hristu, D.E. Tranca and G.A. Stanciu
- European Social Fund Project POSDRU/159/1.5/S/137390/: Award for exceeding the fellowship’s objectives (conference presentations), Award for exceeding the fellowship’s

objectives (journal publications), Excellence Award (highest cumulated publication impact factor in the postdoc target group),

- >15 Awards of the Romanian Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) for authorship of publications in top-tier journals (1st and 2nd quartile journals)

Involvement in organization/support of international conferences:

- Member of the Organizing Committee for the 2012 Workshop on Super-resolution and Life Sciences, 3-6 October 2012, Brasov, Romania
- Member of the Organizing Committee for the 2018 International Conference on Transparent Optical Networks, 1-5 July 2018, Bucharest, Romania
- Inclusiveness Target Countries Conference Grant Coordinator for the CA15124 NEUBIAS Cost Action (2018-present).

LIST OF PUBLICATIONS AND CONFERENCE PARTICIPATIONS

Journal articles (published and under evaluation):

**corresponding author role highlighted in blue navy font*

2020

1. Multiphoton microscopy of the dermoepidermal junction and automated identification of dysplastic tissues with deep learning, M.J. Huttunen, R. Hristu, A. Dumitru, I. Floroiu, M. Costache, **S.G. Stanciu**, *Biomedical Optics Express* **11**, 186-199 (2020)
2. HISTOBREAST, A Collection of Brightfield Microscopy Images of Haematoxylin – Eosin Stained Breast Tissue, R.M. Buga, T. Totu, A. Dumitru, M. Costache, I. Floroiu, N. Sladoje, **S.G. Stanciu**, *Scientific Data*, **7**, 169 (2020)
3. Characterization of Nanostructured Materials by Locally Determining their Complex Permittivity with scattering-type Scanning Near Field Optical Microscopy, **S.G. Stanciu**, D.E. Tranca, L. Pastorino, S. Boi, Y.M. Song, Y.J. Yoo, S. Ishii, R. Hristu, F. Yang, G. Buseti, G.A. Stanciu, *ACS Applied Nano Materials*, **3**, 2, 1250-1262 (2020)
4. Multiphoton Microscopy of Oral Tissues: Review, R.M Martínez-Ojeda, M.D Pérez-Cárceles, L.C Ardelean, **S.G. Stanciu**, J.M Bueno, *Frontiers in Physics*, **8**, 128 (2020)
5. STED nanoscopy of KK114-stained pathogenic bacteria, M. Lucidi, R. Hristu, L. Nichele, G.A. Stanciu, P. Visca, A.M Holban, **S.G. Stanciu**, G. Cincotti, *Journal of Biophotonics*, available online, 10.1002/jbio.202000097, (2020)
6. Editorial: Advances in Label Free Tissue Imaging with Laser Scanning Microscopy Techniques, **S.G. Stanciu**, C. Silien, P. Bianchini, *Frontiers in Physics*, <https://doi.org/10.3389/fphy.2020.00017>, (2020)

7. Editorial: Recent Trends in Optical and Mechanical Characterization of Nanomaterials, **S.G. Stanciu**, L. Latterini, C.A. Charitidis, *Frontiers in Chemistry*, accepted
8. Large-Area Virus Coated Ultra-Thin Colorimetric Sensors with a Highly Lossy Resonant Promoter for Enhanced Chromaticity, Y.J. Yoo, W-G. Kim, J.H. Ko, Y.J. Kim, Y. Lee, J.-M. Lee, **S.G. Stanciu**, J-W. Oh, Y.M. Song, *Advanced Science*, in press, 10.1002/advs.202000978, (2020)
9. Magnetically switchable mechano-chemotherapy for enhancing the death of tumour cells by overcoming drug-resistance, C. Yao, F. Yang, L. Sun, Y. Ma, **S.G. Stanciu**, Z. Li, C. Liu, O. U. Akakuru, L. Xu, N. Hampp, Huanming Lu, A. Wu, *Nano Today*, accepted (2020)
10. Surface optical characterization at nanoscale using phasor representation of data acquired by scattering scanning near-field optical microscopy, D.E. Tranca, R. Hristu, **S.G. Stanciu**, L. Latterini, G.A. Stanciu, *Applied Surface Science*, 509, 145347 (2020)
11. The effect of elasticity on the phagocytosis of micro/nanoparticles, A. Wu, C. Yao, O. Akakuru, **S. G. Stanciu**, N. Hampp; Y. Jin, J. Zheng, G. Chen, F. Yang, *Journal of Materials Chemistry B*, 8, 2381-2392 (2020)
12. BIAFLOWS: A collaborative framework to benchmark and deploy bioimage analysis workflows, U. Rubens, R. Mormont, V. Baecker, G. Michiels, L. Paavolainen, G. Ball, D. Ünay, B. Pavie, A. Chessel, L. A. Scholz, M. Maška, R. Hoyoux, R. Vandaele, **S.G. Stanciu**, O. Golani, N. Sladoje, P. Paul-Gilloteaux, R. Marée, S. Tosi, *Patterns*, 1, 100040 (2020)
13. Objective analysis on collagen organization in thyroid nodule capsules using second harmonic generation microscopy, J.M. Bueno, F.J. Ávila, R. Hristu, S.G. Stanciu, L. Eftimie, G.A. Stanciu, *Applied Optics*, 59(23), 6925-6931, (2020)
14. Pixel-level angular quantification of capsular collagen in second harmonic generation microscopy images of encapsulated thyroid nodules, R. Hristu, L. Eftimie, **S.G. Stanciu**, B. Paun, G.A. Stanciu, *Journal of Biophotonics*, accepted (2020)
- A collection of scattering-type Scanning Near-Field Optical Microscopy and Atomic Force Microscopy images of bacterial cells, M. Lucidi, D.E. Tranca; L. Nichele; D. Unay; G.A. Stanciu; P. Visca; A. M. Holban; R. Hristu; G. Cincotti; **S.G. Stanciu**, under review

2019

15. Precisely tuning the contrast properties of Zn_xFe_{3-x}O₄ nanoparticles in magnetic resonance imaging by controlling their doping contents and sizes, Y. Ma, J. Xia, C. Yao, **S.G. Stanciu**, P. Li, Y. Jin, G. Chen, H. Yang, T. Chen, L. Luo, F. Yang, A. Wu, *Chemistry of Materials*, 31(18), 7255-7264 (2019)
16. Growth Mechanisms and the Effects of Deposition Parameters on the Structure and Properties of High Entropy Film by Magnetron Sputtering, Y. Liang, P. Wang, Y. Wang, Y. Dai, Z. Hu, D.E. Tranca, R. Hristu, **S.G. Stanciu**, A. Toma, G.A. Stanciu, X. Wang, E. Fu, *Materials* 12(18), 3008 (2019)
17. Strategies for optimizing the determination of second order nonlinear susceptibility tensor coefficients for collagen in histological samples, B. Paun, R. Hristu, **S.G. Stanciu**, A. Dumitru, M. Costache, G.A. Stanciu, *IEEE Access*, 7, 135210-135219 (2019).

18. Quantitative Multiphoton Microscopy in Cancer Research: Characterization of Nodule Capsule in Thyroid Pathology, R. Hristu, L.G. Eftimie, B. Paun, S.G. Stanciu, D.E. Tranca, G.A. Stanciu, *Imaging & Microscopy*, 21(11), 18-19 (2019)

2018

19. An objective scoring framework for histology slide image mosaics applicable for the reliable benchmarking of image quality assessment algorithms, T. Totu, R.M. Buga, A. Dumitru, M. Costache, N. Sladoje, **S.G. Stanciu**, *IEEE Access*, 6, 53080-53091 (2018)
20. An evaluation on the robustness of five popular keypoint descriptors to image modifications specific to laser scanning microscopy, D. Unay, **S.G. Stanciu**, *IEEE Access*, 6, 40154-40164 (2018)
21. Investigations on the elasticity of functional gold nanoparticles using single-molecule force spectroscopy, L. Sun, R. Riedel, **S.G. Stanciu**, F. Yang, N. Hampp, L. Xu and A. Wu, *Journal of Materials Chemistry B*, 6(19), 2960-2971 (2018)
22. Nanoscale mapping of refractive index by using scattering-type Scanning Near-Field Optical Microscopy, D.E. Tranca, **S.G. Stanciu**, R. Hristu, B.M. Witgen, and G.A. Stanciu, *Nanomedicine: Nanotechnology, Biology, and Medicine*, 14(1). 47-50 (2018)
23. Modern methods to differentiate benign thyroid nodules from malignant ones, L Eftimie, R Hristu, M Dumitrescu, M Costache, **SG Stanciu**, M Sajin, GA Stanciu, *Romanian Journal of Military Medicine*, 121(1), 40-45 (2018)
24. Quantitative second harmonic generation microscopy for the structural characterization of capsular collagen in thyroid neoplasms, R. Hristu, L. Eftimie, **S.G. Stanciu**, D.E. Tranca, B. Paun, M. Sajin, G.A. Stanciu, *Biomedical Optics Express*, 9(8), 3923-3936 (2018)

2017

25. A Study on Image Quality in Polarization Resolved Second Harmonic Generation Microscopy, **S.G. Stanciu**, R. Hristu, F.J. Avila, J.M. Bueno, *Scientific Reports*, 15476, 2017
26. Correlative Imaging of Biological Tissues with Apertureless Scanning Near-field Optical Microscopy and Confocal Laser Scanning Microscopy, **S.G. Stanciu**, Denis E. Tranca, Radu Hristu, George A. Stanciu, *Biomedical Optics Express*, 8 (12), 5374-5383 (2017)
27. Identification of Stacking Faults in Silicon Carbide by Polarization-Resolved Second Harmonic Generation Microscopy, R. Hristu, **S.G. Stanciu**, D.E. Tranca, E.K. Polychroniadis, G.A. Stanciu, *Scientific Reports*, 7, 4870 (2017)
28. Improved quantification of collagen anisotropy with polarization-resolved second harmonic generation microscopy, R. Hristu, **S.G. Stanciu**, D.E. Tranca, G.A. Stanciu, *Journal of Biophotonics*, 10(9), 1171-1179 (2017)

2016

29. Combined Far-field, Near-field and Topographic Imaging of Nano-Engineered Polyelectrolyte Capsules, **S.G. Stanciu**, D.E. Tranca, C. Ruggiero, G.A. Stanciu, A. Antipov, R. Hristu, L. Pastorino, *Materials Letters*, 183, 105-108 (2016)
30. Perspectives on Combining Nonlinear Laser Scanning Microscopy and Bag-Of-Features Data Classification Strategies for Automated Disease Diagnostics, **S.G. Stanciu**, D.E. Tranca, G.A. Stanciu, R. Hristu, J.M. Bueno, *Optical and Quantum Electronics*, 48(6), 1-13 (2016)
31. Towards Imaging Skin Cancer by Apertureless Scanning Near-Field Optical Microscopy, **S.G. Stanciu**, M. Costache, D.E. Tranca, R. Hristu, M. Popescu, G.A. Stanciu, *UPB Scientific Bulletin: Series A – Applied Mathematics and Physics*, 78(2), 235-244 (2016)
32. Embedding Complementary Imaging Data in Laser Scanning Microscopy Micrographs by Reversible Watermarking, I.-C. Dragoi, **S.G. Stanciu**, R. Hristu, H.-G. Coanda, D.E. Tranca, M. Popescu and Dinu Coltuc, *Biomedical Optics Express*, 7, 1127-1137 (2016)
33. A comparative study of corrosion inhibitors on hot-dip galvanized steel, I.A. Kartsonakis, **S.G. Stanciu**, A. A. Matei, R. Hristu, A. Karantonis, C.A. Charitidis, *Corrosion Science*, 112, 289-307 (2016)
34. Mapping Electron Beam Injected Trapped Charge with Scattering Scanning Near-field Optical Microscopy, D.E. Tranca, E. Ortiga, G. Saavedra, M. Martínez-Corral, S. A. M. Tofail, **S.G. Stanciu**, R. Hristu, G. A. Stanciu, *Optics Letters*, **41**, 1046-1049 (2016)
35. Amplitude and Phase Reconstruction Issues in Scattering Scanning Near-Field Optical Microscopy, D. Tranca, **S.G. Stanciu**, R. Hristu, C. Stoichita, G.A. Stanciu, *University Politehnica of Bucharest Scientific Bulletin-Series A-Applied Mathematics and Physics*, 78 (3), 253-262 (2016)
36. Nanoscale Mapping of Dielectric Function by scattering Scanning Near-Field Optical Microscopy, D.E. Tranca, **S.G. Stanciu**, R.Hristu, C. Stoichita, S. A. M. Tofail and G.A. Stanciu, *Imaging and Microscopy*, 18 (1), 40-42 (2016)

2015

37. Contrast Enhancement Influences the Detection of Gradient Based Local Invariant Features and the Matching of Their Descriptors, **S.G. Stanciu**, D.E. Tranca, D. Coltuc, *Journal of Visual Communication and Image Representation*, 32, pp. 246-256 (2015)
38. High-resolution quantitative determination of dielectric function by using scattering scanning near-field optical microscopy, D.E. Tranca, **S.G. Stanciu**, R. Hristu, C. Stoichita, S.A.M. Tofail, G.A. Stanciu, *Scientific Reports*, 5, 11876, (2015)
39. Evaluation of the protective ability of typical corrosion inhibitors for magnesium alloys towards the Mg ZK30 variant, I.A. Kartsonakis, **S.G. Stanciu**, A. Matei, E.K. Karaxi, R. Hristu, A. Karantonis, C.A. Charitidis, *Corrosion Science*, 100, pp. 194-208, (2015)
40. Electron beam influence on the carbon contamination of electron irradiated hydroxyapatite thin films, R. Hristu, **S.G. Stanciu**, D.E. Tranca, G.A. Stanciu, *Applied Surface Science*, 346, pp. 342-347, (2015).
41. Structural characterization and adhesion appraisal of TiN and TiCN coatings deposited by CAE-PVD technique on a new carbide composite cutting tool, A.A. Matei, I. Pencea, **S.G.**

Stanciu, R. Hristu, I. Antoniac, E. Ciovisa, C.E.Sfat, G.A. Stanciu, *Journal of Adhesion Science and Technology*, 29 (23), 2576-2589, (2015)

2014

42. Experimenting Liver Fibrosis Diagnostic by Two Photon Excitation Microscopy and Bag-of-Features Image Classification, **S.G. Stanciu**, S. Xu, Q. Peng, J. Yan, G. A. Stanciu , R. E. Welsch, P.T.C. So, G. Csucs, H. Yu, *Scientific Reports*, 4, 4636, (2014).
43. Nonlinear optical imaging of defects in cubic silicon carbide epilayers, R. Hristu, **S. G. Stanciu**, D. E. Tranca, A. Matei, G. A. Stanciu, *Scientific Reports*, 4, 5258, (2014).
44. A study on the image contrast of pseudo-heterodyned scattering scanning near-field optical microscopy, D.E. Tranca, C. Stoichita, R. Hristu, **S.G. Stanciu** and G.A. Stanciu, *Optics Express* 22, pp. 1687-1696, (2014).
45. Surface charge and carbon contamination on an electron beam irradiated hydroxyapatite thin film investigated by photoluminescence and phase imaging in atomic force microscopy, R. Hristu, D. E. Tranca, **S. G. Stanciu**, M. Gregor, T. Plecenik, M. Truchly, T. Roch, S. A. M. Tofail and G. A. Stanciu, *Microscopy and Microanalysis*, 20 (2), pp. 586-595, (2014)
46. Gas Sensing Properties of Porphyrin Thin Films Influenced by Their Surface Morphologies, I.Capan, M. Erdogan, B. Güner, B. İlhan, **S.G. Stanciu**, R. Hristu, G.A. Stanciu, *Sensor Letters*, 12 (8), pp. 1218-1227, (2014)

2013

47. Matching DSIFT Descriptors Extracted from CSLM Images, **S.G. Stanciu**, D. Coltuc, D. Tranca and G.A. Stanciu, *Engineering*, 5 (10B), pp. 199-202, (2013).

2012

48. Influence of atomic force microscopy acquisition parameters on thin film roughness analysis, R. Hristu, **S. G. Stanciu**, İ. Çapan, B. Güner, M. Erdoğan, G. A. Stanciu, *Microscopy Research and Technique*, 75 (7), pp. 921–927, (2012)
49. The interaction between the gas sensing and surface morphology properties of LB thin films of porphyrins in terms of the adsorption kinetics, İ. Capan, M. Erdoğan, G.A. Stanciu, **S.G. Stanciu**, R. Hristu, M. Göktepe, *Materials Chemistry and Physics*, 136 (2–3), pp. 1130-1136, (2012)

2011

50. Influence of Confocal Scanning Laser Microscopy specific acquisition parameters to the detection and matching of Speeded-Up Robust Features, **S.G. Stanciu**, R. Hristu and G.A. Stanciu, *Ultramicroscopy*, 111 (5), pp. 364-374, (2011)
51. Digital image inpainting and microscopy imaging, **S.G. Stanciu**, R. Hristu, and G.A. Stanciu, *Microscopy Research and Technique*, 74 (11), pp. 1049-1057, (2011).

52. Sum-modified-Laplacian Fusion Methods Experimented on Image Stacks of Photonic Quantum Ring Laser Devices Collected by Confocal Scanning Laser Microscopy, **S.G. Stanciu**, M. Dragulinescu and GA Stanciu, *UPB Scientific Bulletin – Series A*, 73 (2), (2011)
53. Optical beam induced current microscopy of photonic quantum ring lasers, R. Hristu, S.J. Wu, O'D Kwon, **S.G. Stanciu**, FJ Kao, and GA Stanciu, *Applied Physics B: Lasers and Optics*, 103 (3), 653-657, (2011).
54. The influence of the surface morphologies of Langmuir Blodgett (LB) thin films of porphyrins on their gas sensing properties, D. Cayci, **S. G. Stanciu**, I.Capan, M. Erdogan, B. Guner, R.Hristu, G.A. Stanciu, , *Sensors and Actuators B: Chemical*, 158 (1), pp. 62-68, (2011)
55. Two-photon excited photoluminescence of photonic quantum ring laser structures, R.Hristu, **S.G. Stanciu**, Fu-Jen Kao, and G.A. Stanciu, *Applied Physics B: Lasers and Optics*, 107 (1), pp. 97-101, (2011)

2010

56. On the Suitability of SIFT Technique to Deal with Image Modifications Specific to Confocal Scanning Laser Microscopy, **S.G. Stanciu**, R. Hristu, R. Boriga, and G.A. Stanciu, *Microscopy and Microanalysis*, 16 (5), pp. 515-530, (2010)
57. Automated Compensation of Light Attenuation in Confocal Microscopy by Exact Histogram Specification, **S.G. Stanciu**, G.A. Stanciu, and D. Coltuc, *Microscopy Research and Technique*, 73 (3), pp. 165-175, (2010)
58. Two photon emission and nonlinear optical imaging of acetonitrile treated quasi-spherical nanoscale PbS systems, Dutta, N; Mohanta, D; Ahmed, GA; Choudhury, A; Hristu, R; **Stanciu, SG**; Stanciu, GA, (2010), *IEEE Photonics Journal*, 2 (6), pp. 1060-1068, (2010)
59. Electrochemical stability and surface analysis in evaluation fluoride effect on new bioalloy Ti7Al3V2Mo2Fe used in dentistry, D. Ionita, M. Prodana, I. Demetrescu, **S. G. Stanciu**, G. A. Stanciu, *Materials and Corrossion*, 62, pp. 1111-, (2010),
60. Silicon carbide thin films as nuclear ceramics grown by laser ablation, M. Filipescu, G. Velisa, V. Ion, A. Andrei, N. Scintee, P. Ionescu, **S.G. Stanciu**, D. Pantelica, M. Dinescu, *Journal of Nuclear Materials*, 416 (1-2), pp. 18-21, (2010)

<2010

61. Investigation of the Hydroxyapatite Growth on Bioactive Glass Surface, G. A. Stanciu, I. Sandulescu, B. Savu, **S. G. Stanciu**, K. M. Paraskevopoulos, X. Chatzistavrou, E. Kontonasaki, P. Koidis, *Journal of Biomedical & Pharmaceutical Engineering*, 16, (2007).
62. Investigations on the variable large bandgap semiconductor compound HgBrI, G. A. Stanciu, **S.G. Stanciu**, M. Daviti, E.K. Polychroniadis, *Journal of Physics D: Applied Physics*, 36, pp. 2714-2718, (2003).

Presentations at international conferences:

2020

1. A generic method for segmenting bacteria at the single-cell level in multimodal image sets based on distinct contrast mechanisms, X. Huang, E. Erdil, M. Lucidi, L. Nichele, D. E. Tranca, R. Hristu, M. Cetin, G. Cincotti, **S.G. Stanciu**, D. Unay, NEUBIAS Symposium 2020 (March, Bordeaux)
2. Cross-modal Representation Learning for Efficient Registration of Multiphoton and Brightfield Microscopy Images of Skin Tissue, E. Wetzer, N. Pielawski, J. Öfverstedt, J. Lu, J. Lindblad, I. Floroiu, A. Dumitru, M. Costache, R. Hristu, **S.G. Stanciu**, N. Sladoje, NEUBIAS Symposium 2020 (March, Bordeaux)

2019

3. Deep Learning Enhanced Multiphoton Microscopy for Investigating the Dermoepidermal Junction in Human Skin, M.J. Huttunen, R. Hristu, A. Dumitru, M. Costache and **S.G. Stanciu**, OIE 2019, The 13th Japan-Finland Joint Symposium on Optics in Engineering, 26-30 August 2019, in Espoo and Tallinn
4. Quantitative Imaging of Advanced Nanostructured Materials with scattering-type Scanning Near Field Optical Microscopy, **S.G. Stanciu**, D.E. Tranca, L. Pastorino, Y.M. Song, Y.J. Yoo, S. Ishii, F. Yang, A. Wu, R. Hristu, G.A. Stanciu, AOP2019 – IV International Conference on Applications in Optics and Photonics, Lisbon, Portugal, 31 May- 4 June 2019
5. Fast and accurate classification of multiphoton microscopy images from the dermoepidermal junction in human skin using deep learning, M.J. Huttunen, R. Hristu, A. Dumitru, M. Costache, **S.G. Stanciu**, NEUBIAS 2019: The BioImage Analysis Symposium, Luxembourg, 6-8 February 2019
6. Investigating human skin using deep learning enhanced multiphoton microscopy (invited), M.J. Huttunen, R. Hristu, A. Dumitru, M. Costache, **S.G. Stanciu**, 21st International Conference on Transparent Optical Networks, Angers, France, 9-13 July 2019
7. Correlative multimodal approach based on optical near-field and topographic imaging to characterize the morphology of ESKAPE pathogen bacteria at nanoscale (Invited), G. Cincotti, M. Lucidi, **S. G. Stanciu**, D. E. Tranca, A. M. Holban, L. Nichele, and G. A. Stanciu, 21st International Conference on Transparent Optical Networks, Angers, France, 9-13 July 2019
8. Advances in fractal analysis of the biological tissues images obtained by using laser scanning microscopy (Invited), 21st International Conference on Transparent Optical Networks, A. Toma, R. Hristu, T. Capraru, **S. G. Stanciu**, D. Tranca, and G. A. Stanciu

2018

9. Correlative Optical Imaging in the Far-field and Near-field Regimes of Nanostructured Materials and Biological Specimens, **S.G. Stanciu**, D.E. Tranca, R. Hristu, G.A. Stanciu, 3rd International Symposium on Nanoparticles-Nanomaterials and Applications (3rd ISN2A-2018), Caparica, Portugal, 22-25 January, 2018
10. Towards Automated Characterization of Label-Free Tissues by Means of Multiphoton Microscopy and Parallelized Bag-of-Features Frameworks that Exploit Complementary Information Categories, **S.G. Stanciu**, R. Hristu, D. Unay, A. Dumitru, M. Costache, NEUBIAS 2018: The BioImage Analysis Symposium, Szeged, Hungary, 31st January-2nd February 2018
11. Robustness of Local Invariant Feature Descriptors extracted from fixed-grid locations in Laser Scanning Microscopy Images, D. Unay, **S.G. Stanciu**, NEUBIAS 2018: The BioImage Analysis Symposium, Szeged, Hungary, 31st January-2nd February 2018
12. Robustness of SIFT Feature Descriptors to Imaging Parameters in Laser Scanning Microscopy, D. Unay, **S.G. Stanciu**, 26th IEEE Signal Processing and Communication Applications Conference (SIU 2018), Izmir, Turkey, 2-5 May, 2018
13. Correlative imaging with far-field and near-field techniques: Architecture and applications, **S.G. Stanciu**, D.E. Tranca, R. Hristu, G.A. Stanciu, 2018 European Light Microscopy Initiative Meeting, Dublin, Ireland, 5-8 June, 2018.
14. Towards Automated Tissue Characterization using Parallel Bag-of-Features Experts Dealing with Two-Photon Excitation Fluorescence and Second Harmonic Generation Microscopy Datasets (invited), **S.G. Stanciu**, R. Hristu, A. Dumitru, R.M. Buga, T. Totu, M. Popescu, M. Costache, 20th International Conference on Transparent Optical Networks (ICTON 2018), Buharest, Romania, 1-5 July, 2018
15. A New Technique in Scanning Near Field Optical Microscopy Used for Investigations on the Biological Samples (invited), G.A. Stanciu, D.E. Tranca, R. Hristu, **S.G. Stanciu**, A. Holban, A. Toma, C. Stoichita, 20th International Conference on Transparent Optical Networks (ICTON 2018), Buharest, Romania, 1-5 July, 2018
16. Changes in the collagen structure of thyroid nodule capsules determined by polarization-resolved second harmonic generation microscopy (invited), R. Hristu, **S.G. Stanciu**, B. Paun, L. Eftimie, G.A. Stanciu, 20th International Conference on Transparent Optical Networks (ICTON 2018), Buharest, Romania, 1-5 July, 2018
17. Nanoscale investigations of optical fiber by using scattering scanning near-field optical microscopy (Invited), D.E. Tranca, C. Stoichita, R. Hristu, **S.G. Stanciu**, C.V. Sammut, G.A.

Stanciu, 20th International Conference on Transparent Optical Networks (ICTON 2018), Buharest, Romania, 1-5 July, 2018

18. Imaging biological specimens and advanced materials with correlative far-field near-field microscopy, **S.G. Stanciu**, D.E. Tranca, C. Stoichita, R. Hristu, G. Stanciu, 13th Pacific Rim Conference on Lasers and Electro-Optics (CLEO Pacific Rim, CLEO-PR 2018), Hong Kong, 29 July-3 August, 2018
19. Correlative Optical Imaging in the Far-field and Near-field Regimes of Micro- and Nanostructured Materials, **S.G. Stanciu**, D.E. Tranca, C. Stoichita, R. Hristu, G.A. Stanciu, 26 International Conference on Materials and Technology (26 ICM&T), Portorož, Slovenia 3-5 October, 2018

2017

20. Robust Detection and Description of Local Invariant Features in Laser Scanning Microscopy Datasets (Invited STSM Report), D. Unay, **S.G. Stanciu**, NEUBIAS 2020: The BioImage Analysis Community Conference, Lisbon, Portugal, 15-17 February, 2017
21. A Study on Image Quality in Polarization-Resolved Second Harmonic Generation Microscopy, **S.G. Stanciu**, F.J. Avila, R. Hristu, J.M. Bueno, Focus on Microscopy, Bordeaux, France, 9-12 April, 2017
22. Investigations on hematoxylin & eosin stained sections of acinar pulmonary adenocarcinoma by confocal laser scanning microscopy, I. Dumitru, **S.G. Stanciu**, The 29th European Congress of Pathology (ECP 2017), 2-6 September 2017, Amsterdam
23. Confocal laser-scanning microscopy and conventional light microscopy targeting morphological changes in colorectal lesions, A.S. Postolache, I. Dumitru, S.A. Varban, M. Sajin, G.A. Stanciu, **S.G. Stanciu**, R Hristu, The 29th European Congress of Pathology (ECP 2017), 2-6 September 2017, Amsterdam
24. Improved Second Harmonic Generation Anisotropy for Collagen Organization Analysis in Tissue Samples, R. Hristu, **S.G. Stanciu**, D.E. Tranca, G.A. Stanciu, Focus on Microscopy, Bordeaux, France, 9-12 April, 2017

25. Correlative optical imaging in the far-field and near-field regimes: architecture and applications, **S.G. Stanciu** et. al., Third International Conference on Applications of Optics and Photonics, Faro, Portugal, 8-12 May, 2017
26. Characterization of nanostructured materials, biological specimens, and their interaction by means of correlative optical imaging in the far-field and near-field regimes, **S.G. Stanciu**, D. E. Tranca, A. Holban, R. Hristu, G.A. Stanciu, 21st Conference on Combustion Generated Nanoparticles, Zurich, Switzerland, 19-22 June
27. Correlative Investigations of Biological Specimens using Label Free Far-Field and Near-Field Microscopy Techniques, **S. G. Stanciu**, J. M. Bueno, D.E. Tranca, F.J. Ávila, R. Hristu and G. A. Stanciu, 2017 European Conference on Lasers and Electro-Optics and the European Quantum Electronics Conference (2017 CLEO®/Europe-EQEC), Munich, Germany, 25-29 June, 2017
28. Local Enhancement of Multiphoton Images of Skin Cancer Tissues Using Polarimetry, F. J. Ávila, **S. G. Stanciu**, M. Costache and J. M. Bueno, 2017 European Conference on Lasers and Electro-Optics and the European Quantum Electronics Conference (2017 CLEO®/Europe-EQEC), Munich, Germany, 25-29 June, 2017
29. Investigation on the biological samples by using label free techniques in laser scanning microscopy (invited), G.A. Stanciu, C. Stoichita, D.E. Tranca, R. Hristu, and **S.G. Stanciu**, 19th International Conference on Transparent Optical Networks ICTON 2017, Girona, Spain, 2-6 July, 2017
30. **(invited)** Correlative optical imaging in the far-field and near-field regimes: architecture, applications and perspectives, **S.G. Stanciu** et al, The 25th International Conference on Advanced Laser Technologies (ALT'17), Busan, Korea, 10-15 September 2017

2016

31. Multimodal Imaging of nanostructured materials and biological samples in the far-field and near-field Regimes, **S.G. Stanciu**, D.E. Tranca, C. Stoichita, R. Hristu, L. Pastorino, J.M. Bueno, C. Ruggiero, A. Antipov, G.A. Stanciu et. al., *The Spanish-Portuguese Meeting for Advanced Optical Microscopy*, Bilbao, Spain, 5-7 October, 2016 **(Presentation Award)**
32. Bag-of-Features approaches for classification of combined laser scanning microscopy and spectroscopy data sets (invited), **S.G. Stanciu** et. al., 4th International Symposium "Lasers in Medicine and Biophotonics", Sankt Petersburg, Russia 27 June – 1 July, 2016

33. Combined Far-field and Near-field Imaging Using a Multimodal Architecture, S.G. Stanciu et. al, International Conference on Nanoscopy, Basel, Switzerland, 7-10 June, 2016
34. Multimodal Imaging with Far-field and Near-field Techniques: Architecture and Applications, **S.G. Stanciu** et. al., Junior Euromat 2016, Lausanne, Switzerland, 10-14 July, 2016
35. Homogeneity characterization of Al₉₁-Fe₅-V₂-Si₂ master alloy based on SDAR-OES data and fractal analysis of CLSM micrographs, A.A. Matei, I.Pencea, G.A. Stanciu, R. Hristu and **S.G. Stanciu**, 24 International Conference on Materials and Technology (24 ICM&T), Portoroz, Slovenia, 28-30 September, 2016
36. Ocular Tissues Investigated by Using Scattering Scanning near-Field Optical Microscopy and Atomic Force Microscopy, J.M. Bueno, **S.G. Stanciu**, D.E. Tranca, F.J. Avila, M. Aviles-trigueros, G.A. Stanciu, Focus on Microscopy, Taipei, Taiwan, 20-23 March, 2016
37. Nonlinear Optical Effects Used for Investigations on Biological Samples at Micro and Nanoscale (invited), G.A Stanciu, D.E. Tranca, R. Hristu, S.G. Stanciu, C. Stoichita, A. Toma, IEEE ICTON 2016, Trento, Italy, 10-4th of July, 2016

2015

38. Combined Multimodal Imaging at Micro- and Nanoscale Using Complementary Contrast Mechanisms, **S.G. Stanciu**, C. Stoichita, R. Hristu, D.E. Tranca and G.A. Stanciu, EuroNanoForum 2015, Riga, Latvia, 10-12th of June, 2015 (**Best Poster Presenter Award**)
39. Combining Multiphoton Laser Scanning Microscopy and Bag-of-Features Image Classification for Automated Disease Diagnosis (invited), **S.G. Stanciu**, R. Hristu, D.E. Tranca, G.A. Stanciu, J.M. Bueno, International Conference on Advanced Laser Technologies (ALT 15), 2015, 7-11 September, Faro, Portugal.
40. A Platform for Micro- and Nanoscale Optical Imaging Using Complementary Contrast Mechanisms, **S.G. Stanciu**, C. Stoichita, R. Hristu, D.E. Tranca and G.A. Stanciu, 15th annual meeting of the European Light Microscopy Initiative (ELMI), Sitges, Spain, 19th-22nd of May, 2015
41. Bags-of-Features for classification of Laser Scanning Microscopy Data (invited), **S.G. Stanciu**, R. Hristu, D.E. Tranca, G.A. Stanciu, IEEE ICTON 2015, Budapest, Hungary, 5-9th of July, 2015
42. Investigations on image contrast in pseudo-heterodyne scattering scanning near-field optical microscopy, D.E. Tranca, **S.G. Stanciu**, C. Stoichita, R. Hristu, S.A.M. Tofail & G.A. Stanciu, Focus on Microscopy, Gottingen, Germany, March 29-April 1, 2015
43. Interrelationship between electron-beam-induced surface charge and carbon contamination on hydroxyapatite, R. Hristu, **S.G. Stanciu**, D.E. Tranca & G.A. Stanciu, Focus on Microscopy, Gottingen, Germany, March 29-April 1, 2015
44. On Packing Laser Scanning Microscopy Images by Reversible Watermarking: a Case Study, C. Dragoi, **S.G. Stanciu**, D. Coltuc, D.E. Tranca, R. Hristu and G.A. Stanciu, 23rd IEEE

European Signal Processing Conference (EUSIPCO 2015), Nice, France, 31st August-4th September, 2015

45. Automatic Moiré Pattern Removal in Microscopic Images, G.M. Ionita, D. Coltuc, **S.G. Stanciu**, D.E. Tranca, 19th International Conference on System Theory, Control and Computing (ICSTCC 2015), Cheile Gradistei-Fundata, Romania, 14-16 October, 2015

2014

46. Investigations on Organic Fluorophore Doped Silica Nanoparticles by Apertureless Scanning Near-Field Optical Microscopy (invited), **S.G. Stanciu**, D.E. Tranca, L. Tarpani, G.A. Stanciu, R. Hristu and L. Latterini, 16th International Conference on Transparent Optical Networks, Graz, Austria, 6-10 July 2014
47. Combined microscopy techniques boost biomedical imaging of ocular tissues, J.M. Bueno, D. Tranca, F.J. Valiente-Soriano, M. Aviles-Trigueros, **S.G. Stanciu** & G.A. Stanciu, Focus On Microscopy, Sydney, Australia, April 13-16, 2014
48. Hydroxyapatite surface charge investigated by scanning probe microscopy (invited), R. Hristu, S.A.M. Tofail, **S.G. Stanciu**, D.E. Tranca, and G.A. Stanciu, 16th International Conference on Transparent Optical Networks, Graz, Austria, 6-10 July 2014
49. Scattering scanning near field optical microscopy used for nanoscale investigations (invited), G.A. Stanciu, D.E. Tranca, R. Hristu, C. Stoichita and **S.G. Stanciu**, International Conferences on Laser Applications in Life Sciences (LALS), Ulm, Germany, 29th June – 2nd July, 2014

2013

50. Investigations on skin cancers by nonlinear optical microscopy, **S.G. Stanciu**, M. Popescu, R. Hristu, V. Enache, D.E. Tranca & G.A. Stanciu, Focus on Microscopy 2013, Maastricht, The Netherlands
51. Semi-automated diagnostic of liver fibrosis by two photon excitation microscopy and bag-of-features image classification, **S.G. Stanciu**, S. Xu, Q. Peng, J. Yan, G.A. Stanciu & H. Yu, Focus on Microscopy 2013, Maastricht, The Netherlands
52. Investigations at nanoscale by using fluorescence in apertureless scanning near field microscopy (invited), G.A. Stanciu, D.E. Tranca, R. Hristu, C. Stoichita, **S.G. Stanciu**, 15th International Conference on Transparent Optical Networks 2013, Cartagena, Spain, June 23-27, 2013

2012

53. Nonlinear effects in scanning laser microscopy used to investigate silicon carbide polytypes, G.A. Stanciu, R. Hristu, **S.G. Stanciu**, D.E. Tranca, E.K. Polychroniadis, Focus on Microscopy, Singapore, 2012

54. Enhancing local feature matching between CSLM images by histogram modeling, **S.G. Stanciu**, D. Coltuc, R. Hristu, D. Tranca, G.A. Stanciu, Focus on Microscopy, Singapore, 2012
55. Metalic samples investigated by using a scattering near field optical microscope, G.A. Stanciu, C. Stoichita, R. Hristu, **S.G. Stanciu**, D.E. Tranca, International Conference on Transparent Optical Networks 2012, Warwick, England (invited lecture)
56. Scattering near-field optical microscopy for gold nano-particles investigations, Denis E. Tranca, Radu Hristu, **Stefan G. Stanciu** and George A. Stanciu, 2012 Workshop on Super-resolution and Life Sciences, 3-6 October 2012, Brasov, Romania
57. Optical and morphological characterization of electron beam created surface potential microdomains on hydroxyapatite coatings, Radu Hristu, **Stefan G. Stanciu**, Denis E. Tranca, George A. Stanciu, 2012 Workshop on Super-resolution and Life Sciences, 3-6 October 2012, Brasov, Romania
58. Towards semi-automated diagnostic of liver fibrosis by two photon excitation and bag-of-(SIFT)-features, **Stefan G. Stanciu**, Shuoyu Xu, Qiwen Peng, Jie Yan and Harry Yu, 2012 Workshop on Super-resolution and Life Sciences, 3-6 October 2012, Brasov, Romania

2011

59. Completing Missing or Damaged Regions in Microscopy Images by Inpainting, **S.G. Stanciu**, R.Hristu and G.A.Stanciu, Focus on Microscopy 2011, Konstanz, Germany
60. Two photon excitation imaging used to investigate photonic quantum ring lasers, R.Hristu, **S.G. Stanciu** and G.A.Stanciu, Focus on Microscopy 2011, Konstanz, Germany
61. Automatic estimation of stacking fault density in SiC specimens imaged by Transmission Electron Microscopy, **S. G. Stanciu**, D. Coltuc, G.A. Stanciu, A. Andreadou, A. Mantzari and E.K.Polychroniadis, *International Conference on Transparent Optical Networks* 2011 (June), Stockholm, Sweden
62. Investigations on SiC by using nonlinear effects in scanning laser microscopy, *R. Hristu*, **S.G. Stanciu**, G.A. Stanciu, E.K. Polychroniadis, *International Conference on Transparent Optical Networks* 2011 (June), Stockholm, Sweden, (invited)

2010

63. Optical Properties of the Materials Investigated at Nanoscale Resolution by using Apertureless Scanning Near Optical Microscopy, **S.G. Stanciu**, R.Hristu and G.A.Stanciu, FEMS Junior Euromat Conference 2010, Lausanne, Switzerland
64. Optical induced current technique used to investigate the photonic quantum ring laser Stanciu, G.A. Hristu, R., **Stanciu, S.G.** O'Dae Kwon Kim, D.K. *IEEE International Conference on Transparent Optical Networks* 2010, Munchen, Germany (invited)

<2010

65. Scanning Laser Microscopy: From Far Field to Near Field. Stanciu, GA; Stoichita, C; **Stanciu, SG**. *ICTON: 2009 11th International Conference on Transparent Optical Networks*, (invited) VOLS 1 AND 2545-549 2009 S Miguel, PORTUGAL
66. Feature Based Recognition of Photonic Devices in Images Obtained by Confocal Scanning Laser Microscopy, **Stanciu, SG**; Hristu, R; Boriga, R; Stanciu, G, *ICTON: 2009 11th International Conference on Transparent Optical Networks*, vols 1 and 21330-1333, S Miguel, Portugal
67. Flexible Production of Light Fringes in Structured Illumination Microscopy, Genaro Saavedra, E. Sánchez-Ortiga, **S. Stanciu**, and M. Martínez-Corral, *Focus on Microscopy 2009*, Krakow, Poland
68. Image fusion for photonic quantum ring laser structures investigated by confocal scanning laser microscopy (Invited), **S.G. Stanciu**, D. Coltuc, R. Hristu, C. Stoichita, G.A. Stanciu, *3rd ICTON-MW 2009*, Angers, France
69. Near field investigation based on a new apertureless near field optical microscope, (Invited), C. Stoichita, R. Hristu, **S.G. Stanciu**, G. Stanciu, *3rd ICTON-MW 2009*, Angers, France
70. A simple approach to telemicroscopy, **Stefan G. Stanciu** , George A. Stanciu, *IADIS 2008 International e-society conference*, Algarve, Portugal
71. Tunneling at emitter periphery in silicon nitride passivated InP/InGaAs HBTs, D. Sachelarie, G.A. Stanciu, **S.G. Stanciu**, G. Predusca, *Indium Phosphide and Related Materials IPRM May 2008*, Versaille, France
72. Semiconductor Quantum Dots Investigated by X-Ray Diffraction, Scanning Laser Microscopy and Atomic Force Microscopy, **S.G. Stanciu**, R. Hristu, G.A. Stanciu, *Junior Euromat Conference 2008*, Lausanne, Switzerland
73. Investigation on photonic-corrall-mode quantum ring lasers by laser scanning microscopy. Stanciu, GA; **Stanciu, SG**; Hristu, R; Kwon, O; Kim, DK, *10th International Conference on Transparent Optical Networks 2008*, Athens, Greece (invited)
74. Photonic-Corrall-Mode Quantum Ring Lasers investigated by Laser Scanning Microscopy and Near Field Microscopy, Stanciu, GA; **Stanciu, SG**; Hristu, R; Kim, DK; Kwon, O *2008 2nd ICTON Mediterranean Winter (ICTON-MW)*, Marrakech, Morocco (invited)
75. Compensating the effects of light attenuation in confocal microscopy by histogram modelling techniques, **S.G. Stanciu**, J. Friedmann, *2008 2nd ICTON Mediterranean Winter (ICTON-MW)*, Marrakech, Morocco
76. Examination of sol-gel coatings by means of laser scanning microscopy and electron microscopy, G. Stanciu , B. Savu , **S. Stanciu** , D. Bojin , J. Bauer , A. Ulatowska-Jarza, I. Holowacz , H. Podbielska, *Focus on Microscopy 2007*, Valencia
77. Statistical pattern recognition methods for evaluation of pure and doped sol-gel materials basing on microscopic images **S.G. Stanciu**, G.A. Stanciu, B. Savu, J. Bauer, A.Ulatowska-Jarza, I. Hołowacz, H. Podbielska, *IXth International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM) 2007* (invited), Cracow, Poland

78. Atomic force microscopy analysis of orientation effect on InP-based heterojunction bipolar transistors, D. Sachelarie, **S.G. Stanciu**, G.A. Stanciu, *International Conference on Transparent Optical Networks MW 2007*, Sousse, Tunisia
79. Investigation on CdS: Mn quantum dots using scanning laser microscopy, **Stanciu, S. G.**, Hristu, R., Savu, B., Stanciu, G. A., Mohanta, D., Ahmed, G.A., Choudhury, A. 2007 ICTON Mediterranean Winter Conference, Sousse, Tunisia (invited)
80. Atomic Force Microscopy and Scanning Laser Microscopy Investigations on Energetic Oxygen Ion Irradiated Elongated CdS:Mn Nanostructures, G. A. Stanciu, **S.G. Stanciu**, J. Friedmann, D. Mohanta, A Choudhury, *Nanoscience and Nanotechnology 2006*, Basel, Switzerland
81. A Study of Novel Langmuir-Blodgett Thin Film Materials Using Atomic Force Microscopy, R. Capan, M. Evyapan, H. Namlı, O. Turhan, **S. Stanciu**, B. Savu, J. Friedmann, G.A. Stanciu, *Nanoscience and Nanotechnology 2006*, Basel, Switzerland
82. Investigations on Energetic Oxygen Ion Irradiated Elongated CdS:Mn Nanostructures using Atomic Force Microscopy and Scanning Laser Microscopy, G. A. Stanciu, **S.G. Stanciu**, I. Sandulescu, B. Savu, J. Friedmann, D Mohanta, F Singh, D K Avasthi, A Choudhury, *Conference on Advanced Laser Technologies 2006*, Brasov, Romania.
83. Investigation on novel Langmuir-Blodgett thin film materials, R. Capan, M. Evyapan, H. Namlı, O. Turhan, **S. Stanciu**, B. Savu, J. Friedmann, G.A. Stanciu, *International Conference Advanced Laser Technologies, 2006*, Braşov, Romania
84. Confocal scanning laser microscopy used to investigate hydroxyapatite grown on the bioactive glass, G. A. Stanciu, I Sandulescu, B. Savu, **S.G. Stanciu**, K.M. Paraskevopoulos, X. Chatzistavrou, E. Kontonasaki, P. Koidis, *International Conference on Biomedical and Pharmaceutical Engineering 2006*, Singapore
85. Confocal Scanning Laser Microscopy used for surface analyze of hydroxyapatite grown on bioactive glass, **S. G. Stanciu**, I. Sandulescu and G. A. Stanciu, *13th General Conference, of the European Physical Society 2005*, Bern, Switzerland
86. Scanning third-harmonic microscopy of a thin film of CdS semiconductor quantum dots embedded in a polymeric matrix, G. A. Stanciu, I. Sandulescu, **S.G. Stanciu** and G. Boyer, *13th General Conference, of the European Physical Society 2005*, Bern, Switzerland
87. Surface Topography Characterization of Apatite Formation on Bioactive Glass Modified Dental Ceramics Using Confocal Laser Scanning CLSM) and Environmental Scanning Electron Microscopy (ESEM), G.A. Stanciu, **S.G. Stanciu**, C. Dan, K.M. Paraskevopoulos, X. Chatzistavrou, E. Kontonasaki, P. Koidis, *Bioceramics 18, 18th International Symposium of ceramics in Medicine, The annual meeting of the International Society for Ceramics in medicine 2005*, Kyoto, Japan.
88. Confocal Laser Scanning Microscopy used to investigate the hydroxycarbonate apatite layer formation on the bioactive glass surface, G. A. Stanciu, I. Sandulescu, **S.G. Stanciu**, K.M. Paraskevopoulos, P. Koidis, *OWLS 2004*, Melbourne, Australia
89. Investigations on bioactive materials used in restorative dentistry and implantology by using Scanning Electron Microscopy, Fourier Transform Infrared Spectroscopy and Confocal

Scanning Laser Microscopy, P. Koidis, K.M. Paraskevopoulos , **S.G. Stanciu** and G.A. Stanciu, *Focus on Microscopy 2003*, Genoa, Italy.

BOOK CHAPTERS

1. **Stanciu, S.G.**, Stanciu, G.A and Coltuc, D., *Compensating Light Intensity Attenuation in Confocal Scanning Laser Microscopy by Histogram Modeling Methods*, in "Digital Image Processing" Ed. Stefan G. Stanciu, 2012, ISBN 979-953-307-223-3, INTECH Open Access Publisher
2. Lang, S.B., Stanciu, G.A. and **Stanciu S.G**, *Non-linear Characterizations of Surface Charge and Interfacial Morphology*, in "Biological Interactions with Surface Charge in Biomaterials", ed. Syed A. M. Tofail, ISBN: 978-1-84973-185-0, 2011, RSC Nanoscience & Nanotechnology series, RSC Publishing
3. **Stanciu, S.G.**, *Image Fusion Methods for Confocal Scanning Laser Microscopy experimented on Images of Photonic Quantum Ring Laser Devices*, in "Image Fusion" Ed. Osamu Ukimura, ISBN 978-953-7619-X-X, INTECH Open Access Publisher

BOOKS EDITED:

- Micro and Nanotechnologies for Biotechnologies (2016), **Ed. S.G. Stanciu**, ISBN 978-953-51-2531-0, InTech Open Access Publisher
- Microscopy and Analysis (2016), **Ed. S.G. Stanciu**, ISBN 978-953-51-2579-2, Print ISBN 978-953-51-2578-5, InTech Open Access Publisher
- Digital Image Processing, (2012), **Ed. S.G. Stanciu**, ISBN 978-953-307-801-4 , InTech Open Access Publisher