



**Europass
Curriculum Vitae**



Personal information

First name(s) / Surname(s) **Stefan G. Stanciu**
Address Splaiul Independentei 313, 060042 Bucharest (Romania)

E-mail(s) sgstanciu@gmail.com ; stefan.g.stanciu@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

Year(s) 2015 →(ongoing)
Occupation or position held Director/Coordinator for research grants funded under national and EU competitions
Name and address of employer Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest

Year(s) 2012 →(ongoing)
Occupation or position held Scientific Researcher
Name and address of employer Center for Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest

Year(s) 2013
Occupation or position held SCIEX Research Fellow
Name of employer Light Microscopy and Screening Center, Swiss Federal Institute of Technology (ETH Zurich)

Year(s) 2007 – 2011
Occupation or position held Research Assistant
Name of employer Center for Microscopy-Microanalysis and Information Processing, University

Politehnica Bucharest

Year(s) 2003 – 2007
Occupation or position held Undergraduate Research Intern
Center for Microscopy-Microanalysis and Information Processing, University
Name of employer Politehnica Bucharest

Year(s) 2005 – 2006
Occupation or position held IT Consultant
Name and address of employer WING Computer Group

EDUCATION AND TRAINING

Dates 1998-2002
Name and type of organisation providing education and training “Spiru Haret” National College (High-School)
Specialization Informatics
Title gained Assistant Analyst Programmer

Dates 2002 – 2007
Title of qualification awarded Diplome Engineer
Domain, Specialization 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 Electronics and Telecommunications
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.

OTHER ACADEMIC DEGREES

Dates	2022
Title of qualification awarded	Habilitation in Physics (granting rights for PhD supervisorship)
Title of thesis	Advances in Medicine, Biology and Materials Science using Methods based on Non-conventional Microscopy Techniques
Defense committee:	Prof. Zeev Zalevsky (Bar-Ilan University), Prof. Giuseppe Chiricco (University of Milano-Bicocca University), Prof. Cristina Stan (University Politehnica of Bucharest)
Name and type of organisation	Doctoral School of Applied Sciences, University Politehnica of Bucharest

PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

Program/Project	Duration
<i>*budget provided for projects implemented as project director/coordinator</i>	
RO-NO-2019-0601: Understanding Membrane Dynamics and their Implications for Cancer with Correlative Optical Nanoscopy and Artificial Intelligence (MEDYCONAI) – Project Coordinator (in collaboration with Partner Leader Prof. Harald A . Stenmark, Oslo University Hospital) Total project value: 1,633,450 EUR	2021-2023
PN-III-P1-1.1-TE-2019-1339: Augmenting Micro- and Nanoscale Optical Imaging Techniques with Generative Adversarial Networks (OPTIGAN) – Project Director Total project value: 89,289 EUR	2021-2022
PN-III-P2-2.1-PED-2019-1666: Method for fast and precise diagnostic of gastric cancers based on non-linear optical microscopy and Deep Learning (GASTRODEEEP) – Project Coordinator (in collaboration with Partner Leader Prof. Mariana Costache, Carol Davila University of Medicine and Pharmacy) Total project value: 124,041 EUR	2020-2022
PN-III-P2-2.1-PED-2019-2386: Development of a nanoscale read/write platform for photonic crystals and waveguides for computations optics (INTEGRAOPTIC), Research Team Member	2020-2022
PN-III-P1-1.1-TE-2019-1756: Integration of pixel-wise and whole image classification of second harmonic generation microscopy datasets for thyroid pathology (SHGTHYPATH), Research Team Member	2020-2022
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)	2019-2020

<p>–Project Coordinator (in collaboration with Partner Leader Prof. Erik Manders, Confocal.nl) Total project value: 100,000 EUR</p>	
<p>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) Total project value: 100,000 EUR</p>	2019-2020
<p>Project funded by the Bureau of International Co-operation of the Chinese Academy of Sciences: Biological Near - field fluorescence microscopic imaging system with functional nanomaterials –Partner Team Leader (in collaboration with Principal Investigator Assoc. Prof. Fang Yang, Ningbo Institute of Material Technology & Engineering)</p>	2020-2021
<p>PN-III-P1-1.1-TE-2016-2147: Correlative optical imaging in the far-field and near-field regimes: technical developments and applications (CORIMAG), Project Director Total project value: 96,700 EUR</p>	2018-2020
<p>PN-III-P1-1.1-TE-2016-2147: Label-free quantitative microscopy based on second harmonic generation at nanoscale (NANO-SHG), Research Team member</p>	2018-2020
<p>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) Total project value: 10,917 EUR</p>	2018-2019
<p>CN: Guangxi Scientific Research And Technology Development Plan: Exploiting the application of single molecule imaging technology in researches of enzyme engineering, Partner Team Leader (in collaboration with Prof. Shaomin Yan, Project Director on behalf of Guangxi Academy of Sciences in Nanning, China)</p>	2017-2020
<p>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 Prof. Mariana Costache, Partner Leader on behalf of “Carol Davila” University of Medicine and Pharmacy in Bucharest) Total project value: 131,171 EUR</p>	2017-2018
<p>PN-III-P2-2.1-PED-2016: QUANTITATIVE NANOSCOPY FOR THE CHARACTERIZATION OF BIOLOGICAL TISSUES (Q-NANOBIOT). Research team member</p>	2017-2018
<p>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</p>	2017-2018
<p>FRAMEWORK FOR BILATERAL SCIENTIFIC COOPERATION ROMANIA – CHINA: INVESTIGATIONS ON THE FUNCTION AND MICRO-STRUCTURE OF</p>	2016-2017

<p>THE CELLULASE SECRETION SYSTEM BY HIGH-RESOLUTION IMAGING TECHNIQUES (CESESYS)</p> <p>Project Director (in collaboration with Co-Principal Investigator Dr. Guang Wu from Guangxi Academy of Sciences in Nanning)</p> <p>Total project value: 11,170 EUR</p>	
<p>PN-II-RU-TE-2014-4-1803: CORRELATION AND INTEGRATION OF MICROSCOPY AND NANOSCOPY DATA BY ADVANCED COMPUTER VISION METHODS (MICRONANO), -Project Director</p> <p>Total project value: 123,425 EUR</p>	2015-2017
<p>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),</p> <p>-PRINCIPAL INVESTIGATOR, (Excellence Award)</p>	2014-2015
<p>CH-SCIEX/ POST-DOCTORAL RESEARCH FELLOWSHIP: REGISTRATION AND FUSION OF HIGH RESOLUTION IMAGING DATA (IMPLEMENTED AT ETH ZURICH),</p> <p>-PRINCIPAL INVESTIGATOR</p> <p>Total project value: 32,495 EUR</p>	2013
<p>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,</p> <p>- Research team member</p>	2012-2016
<p>EU-CORDIS-FP7/ REAL TIME LABEL FREE NANOSCOPY USING INFRA RED ABSORPTION (LANIR). Research team member</p>	2012-2015
<p>PN-II-PT-PCCA/ INNOVATIVE METHOD AND SYSTEM FOR THE DETECTION OF DRUG EVIDENCE BY PLASMA-LASER ASSISTED MASS SPECTROSCOPY. Research team member</p>	2012-2016
<p>EU-CORDIS-FP7/ ELECTRICALLY MODIFIED BIOMATERIALS SURFACE: FROM ATOMS TO APPLICATIONS, GRANT AGREEMENT (BIOELECTRICSURFACE). Research team member</p>	2008-2011
<p>BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-SLOVAKIA. Research team member</p>	2011-2012
<p>BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-TURKEY. Research team member</p>	2010-2011
<p>BILATERAL SCIENTIFIC COOPERATION PROJECT: ROMANIA-INDIA. Research team member</p>	2007-2009
<p>RO-PNII-IDEI/ DEVELOPMENTS OF NEW INVESTIGATION TECHNIQUES IN SCANNING OPTICAL MICROSCOPY AND THEIR APPLICATIONS. Research team member</p>	2009-2011
<p>PNII/ STUDIES REGARDING INTERACTION MECHANISMS BETWEEN LASER AND RADIOFREQUENCY RADIATION WITH SUPERIOR AERODIGESTIVE</p>	2007-2010

TISSUES AND THE DEVELOPMENT OF THERAPEUTICAL PROTOCOLS. Research team member	
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/ 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

PARTICIPATION IN EU COST ACTIONS

CA15124 A NEW NETWORK OF EUROPEAN BIOIMAGE ANALYSTS TO ADVANCE LIFE SCIENCE IMAGING (NEUBIAS) – MANAGEMENT COMMITTEE MEMBER; ITC Conference Grants Coordinator	2016-2020
CA16124 BRILLOUIN LIGHT SCATTERING MICROSPECTROSCOPY FOR BIOLOGICAL AND BIOMEDICAL RESEARCH AND APPLICATIONS (BIOBRILLOUIN)” – MANAGEMENT COMMITTEE MEMBER	2017-2021
CA19118 - High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications (EsSENce) - MANAGEMENT COMMITTEE MEMBER; STSM Programme Coordinator, Grant Awarding Coordinator, Workgroup 6 (Characterization) Co-Leader	2020-2024

EDITORIAL APPOINTMENTS:

- Senior Editor, IEEE Photonics, IEEE (2021-ongoing)
- Associate Editor, Frontiers in Photonics, Frontiers (2021-ongoing)
- Topic Editor: Materials, MDPI (2020-ongoing)
- Review Editor: ‘Nanobiotechnology’ section of Frontiers in Bioengineering and Biotechnology (2015-ongoing)
- Guest Associate Editor at Materials (Special Issue: “Artificial Intelligence for Advanced Materials Research”), 2020 -

- 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”), 2019-2020
- Guest Associate Editor at the Nanoscience Section of Frontiers in Chemistry (Research Topic: “Recent Trends in Optical and Mechanical Characterization of Nanomaterials”), 2019-2020
- Guest Associate Editor at Scanning (Special Issue: “Novel Scanning Characterization Approaches for the Accurate Understanding and Successful Treatment of Oral and Maxillofacial Pathologies”), 2019-2020

REVIEWED MANUSCRIPTS FOR:

Biomedical Optics Express, Optics Letters, Journal of Biophotonics, Scientific Reports, Measurement, Data in Brief, Artificial Intelligence in Medicine, OSA Continuum, Computer Methods and Programs in Biomedicine, IEEE Transactions on Systems, Man and Cybernetics: Systems, Sensors, Electronics, 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, Frontiers in Bioengineering and Biotechnology Frontiers in Physics, PlosOne, Optik, Materials Letters, Journal of Gastroenterology and Hepatology, ACS Photonics, ACS Sensors, IEEE Photonics, Advanced Materials, Small Methods.

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),
- >20 PRECISI 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 (2018-2020).
- Co-Chair of Session 3.8 – Special Technical Session – Nanostructured devices and smart materials for biophotonics applications, IEEE MELECON 2022, The 21st IEEE Mediterranean Electrotechnical Conference Palermo, Italy, 14-16 June 2022
- Member of the Organizing Committee for the 2023 International Conference on Transparent Optical Networks, 2-6 July 2023, Bucharest, Romania

PUBLICATIONS AND CONFERENCE PARTICIPATIONS

JOURNAL PUBLICATIONS

(main author role is highlighted by **bold underline** font)

2023

1. Roadmap on Label-Free Super-Resolution Imaging, V. N. Astratov, Y. B. Sahel, Y. C. Eldar, L. Huang, A. Ozcan, N. Zheludev, J. Zhao, Z. Burns, Z. Liu, E. Narimanov, N. Goswami, G. Popescu, E. Pfitzner, P. Kukura, Y.-T. Hsiao, C.-Lung Hsieh, B. Abbey, A. Diaspro, A. LeGratiet, P. Bianchini, N. T. Shaked, B. Simon, N. Verrier, M. Debailleul, O. Haeberlé, S. Wang, M. Liu, Y. Bai, J.-X. Cheng, B. S. Kariman, K. Fujita, M. Sinvani, Z. Zalevsky, X. Li, G.-J. Huang, S.-W. Chu, O. Tzang, D. Hershkovitz, O. Cheshnovsky, M. J. Huttunen, **S. G. Stanciu**, V. N. Smolyaninova, I. I. Smolyaninov, U. Leonhardt, S. Sahebdivan, Z. Wang, B. Luk'yanchuk, L. Wu, A.V. Maslov, B. Jin, C. R. Simovski, S. Perrin, P. Montgomery, and S. Lecler, *Laser & Photonics Reviews*, in press, DOI: 10.1002/lpor.202200029
2. DeepGT: Deep learning-based quantification of nanosized bioparticles in bright-field micrographs of Gires-Tournois biosensor, J. Kang, Y.J. Yoo, J.-H. Park, J. H. Ko, S. Kim, **S.G. Stanciu**, H.A. Stenmark, J. Lee, A. Al Mahmud, H.-G. Jeon, Y.M. Song, *Nano Today*, 52, 101968 (2023)
3. Toward next-generation endoscopes integrating biomimetic video systems, nonlinear optical microscopy, and deep learning, **Stanciu S. G.**, König, K., Song, Y. M., Wolf, L., Charitidis, C. A., Bianchini, P., & Goetz, M. *Biophysics Reviews*, 4(2), 021307 (2023)
4. Fighting bacterial pathogens with carbon nanotubes: focused review of recent progress, Asaftei, M., Lucidi, M., Cirtoaje, C., Holban, A. M., Charitidis, C. A., Yang, F., Wu, A, Stanciu, G.A., Saglam, O., Lazar, V., Visca, P., **Stanciu, S. G.**, RSC Advances, 13(29), 19682-19694 (2023)

5. Automated Detection of Corneal Edema with Deep Learning-assisted Second Harmonic Generation Microscopy, Anton, S.R., Martínez-Ojeda, R.M., Hristu, R., Stanciu, G.A., Toma, A., Banica, C.K., Fernández, E.J., Huttunen, M.J., Bueno, J.M. and **Stanciu, S.G.**, 2023.. *IEEE Journal of Selected Topics in Quantum Electronics*, vol. 29 (6), p.7201010
6. Nanoscale local modification of PMMA refractive index by tip-enhanced femtosecond pulsed laser irradiation, Tranca, D.E., **Stanciu, S.G.**, Hristu, R., Ionescu, A.M. and Stanciu, G.A., 2023.. *Applied Surface Science*, vol. 623, p.157014.
7. Magneto-mechanical Therapeutic Effects and associated Cell Death Pathways of magnetic nanocomposites with distinct geometries, Yao, C., Yang, F., Zhang, J., Yao, J., Cao, Y., Peng, H., **Stanciu, S.G.**, Charitidis, C.A. and Wu, A., 2023.. *Acta Biomaterialia*, vol. 161, pp. 238-249
8. Structural and Mechanical Properties of CrN Thin Films Deposited on Si Substrate by Using Magnetron Techniques, Tranca, D.E., Sobetskii, A., Hristu, R., Anton, S.R., Vasile, E., **Stanciu, S.G.**, Banica, C.K., Fiorentis, E., Constantinescu, D. and Stanciu, G.A., 2023. *Coatings*, 13(2), p.219.
9. Toward augmenting tip-enhanced nanoscopy with optically resolved scanning probe tips, Belhassen, J., Glass, S., Teblum, E., Stanciu, G.A., Tranca, D.E., Zalevsky, Z., **Stanciu, S.G.** and Karsenty, A., 2023. *Advanced Photonics Nexus*, 2(2), p.026002.

2022

10. Super-resolution re-scan second harmonic generation microscopy, **Stanciu, S.G.**, Hristu, R., Stanciu, G.A., Tranca, D.E., Eftimie, L., Dumitru, A., Costache, M., Stenmark, H.A., Manders, H., Cherian, A. Tark-Dame, M., Manders, E.M.M., 2022. *PNAS - Proceedings of the National Academy of Sciences*, 119(47), p.e2214662119.
11. “Double-punch” strategy against triple-negative breast cancer via a synergistic therapy of magneto-mechanical force enhancing NIR-II hypothermal ablation., Du, H., Yang, F., Yao, C., Lv, W., Peng, H., **Stanciu, S.G.**, Stenmark, H.A., Song, Y.M., Jiang, B. and Wu, A., 2022. *Biomaterials*, 291, p.121868.
12. Multifunctional Modulation of High-Performance Zn_xFe_{3-x}O₄ Nanoparticles by Precisely Tuning the Zinc Doping Content., Du, H., Yang, F., Yao, C., Zhong, Z., Jiang, P., **Stanciu, S.G.**, Peng, H., Hu, J., Jiang, B., Li, Z. and Lv, W., 2022. *Small*, 18(42), p.2201669.
13. Gires-Tournois immunoassay platform for label-free bright-field imaging and facile quantification of bioparticles, Y.J. Yoo, J.H. Ko, G.J. Lee, J. Kang, M. S. Kim, **S.G. Stanciu**, H.H. Jeong, D.H. Kim, Y.M. Song, *Advanced Materials*, 34 (21), 2110003 (2022)
14. Eftimie, L.G., Glogojeanu, R.R., Tejaswee, A., Gheorghita, P., **Stanciu, S.G.**, Chirila, A., Stanciu, G.A., Paul, A. and Hristu, R., 2022. Differential diagnosis of thyroid nodule capsules using random forest guided selection of image features. *Scientific Reports*, 12(1), pp.1-13.

15. Hristu, R., **Stanciu, S.G.**, Dumitru, A., Eftimie, L.G., Paun, B., Tranca, D.E., Gheorghita, P., Costache, M. and Stanciu, G.A., 2022. PSHG-TISS: A collection of polarization-resolved second harmonic generation microscopy images of fixed tissues. *Scientific Data*, 9(1), pp.1-12.
16. Scattering-type Scanning Near-Field Optical Microscopy of Polymer-Coated Gold Nanoparticles. **S.G. Stanciu**, D.E. Tranca, G. Zampini, R. Hristu, G.A. Stanciu, X. Chen, M. Liu, H.A. Stenmark, L. Latterini. *ACS Omega*, 7, 11, pp. 11353-11362, (2022).
17. F. Yang, J. Yao, F. Zheng, H. Peng, S. Jiang, C. Yao, H. Du, B. Jiang, **S.G. Stanciu**, A. Wu. Guarding food safety with conventional and up-conversion near-infrared fluorescent sensors. *Journal of Advanced Research*, 41 (November 2022) 129-144 (2022)
18. R. Hristu, L.G. Eftimie, **S.G. Stanciu**, R.R. Glogojeanu, P. Gheorghita, G.A. Stanciu. Assessment of Extramammary Paget Disease by Two-Photon Microscopy. *Frontiers in Medicine*, 9, (2022).
19. X. Chen, Z. Yao, Z. Sun, **S.G. Stanciu**, D. N. Basov, R. Hillenbrand, M. Liu. "Rapid simulations of hyperspectral near-field images of three-dimensional heterogeneous surfaces–part II." *Optics Express* 30 (7), (2022).

2021

20. Hybrid Machine Learning for Scanning Near-field Optical Spectroscopy, X. Chen, Z. Yao, S. Xu, A.S. McLeod, S.N.G. Corder, Y. Zhao, M. Tsuneto, H.A. Bechtel, M.C. Martin, G. L. Carr, M.M. Fogler, **S.G. Stanciu**, D.N. Basov, M. Liu, *ACS Photonics*, 8(10), 2987–2996 (2021)
21. Rapid Simulations of Hyperspectral Near-field Images of Three-dimensional Heterogeneous Surfaces, X. Chen, Z. Yao, **S.G. Stanciu**, D. N. Basov, R. Hillenbrand, M. Liu, *Optics Express*, 29(24), 39648-39668 (2021)
22. The influence of hematoxylin and eosin staining on the quantitative analysis of second harmonic generation imaging of fixed tissue sections, Biomedical Optics Express, R. Hristu, **S.G. Stanciu**, B. Paun, I. Floroiu, A. Dumitru, M. Costache, G.A. Stanciu, *Biomedical Optics Express*, 12, 5829-5843 (2021)
23. Characterization of *Acinetobacter baumannii* filamentous cells by Re-scan confocal microscopy and complementary fluorometric approaches, M.Lucidi, R. Hristu, L. Nichele, G.A. Stanciu, P. Visca, C.K.Banica, G. Cincotti, **S.G. Stanciu**, *IEEE Journal of Selected Topics in Quantum Electronics*, 27(5), 6801207 (2021)

2020

24. 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*, 35, 100967 (2020)
25. 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*, 7(18), 2000978, (2020)
26. 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)

27. 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)
28. 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)
29. 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)
30. 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*, 13(9), e202000097, (2020)
31. SSNOMBACTER: 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**, *GigaScience*, 9(11), 1-12 (2020)
32. BIAFLOWS: A collaborative framework to benchmark and deploy bioimage analysis workflows, U. Rubens, R. Mormont, V. Baecker, G. Michiels, L. Paavolainen, G. Ball, D. Únay, 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)
33. 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)
34. Editorial: Recent Trends in Optical and Mechanical Characterization of Nanomaterials, **S.G. Stanciu**, L. Latterini, C.A. Charitidis, *Frontiers in Chemistry*, 2020
35. 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)
36. 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)
37. 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)
38. 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*, 13 (12) e202000262 (2020)

2019

39. 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)

40. 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)
41. 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).
42. 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

43. 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)
44. 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)
45. 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)
46. 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)
47. 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)
48. 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

49. 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
50. 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)
51. 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)
52. 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

53. 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)
54. 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)
55. 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)
56. 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)
57. 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)
58. 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)
59. 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)
60. 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

61. 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)
62. 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)
63. 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)
64. 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).
65. 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. Ciovica, C.E.Sfat, G.A. Stanciu, *Journal of Adhesion Science and Technology*, 29 (23), 2576-2589, (2015)

2014

66. 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).
67. 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).
68. 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).
69. 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)
70. 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)

2012

71. 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)
72. 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

73. 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)
74. 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).
75. 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)
76. 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).

77. 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)
78. 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

79. 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)
80. 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)
81. 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)
82. 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 Corrosion*, 62, pp. 1111-, (2010),
83. 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

84. Stanciu, G. A., Sandulescu, I., Savu, B., **Stanciu, S. G.**, Paraskevopoulos, K. M., Chatzistavrou, X., ... & Koidis, P. (2007). Investigation of the hydroxyapatite growth on bioactive glass surface. *Journal of Biomedical & Pharmaceutical Engineering*, 1(1), 34-39.
85. 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).

PUBLICATIONS IN WOS-INDEXED CONFERENCE PROCEEDINGS VOLUMES

1. DE Tranca, A Sobetkii, R Hristu, **SG Stanciu**, C Stoichita, GA Stanciu, Applications of Phasor Data Analysis on Scattering Scanning Near-field Optical Microscopy Investigations, In *23rd International Conference on Transparent Optical Networks (ICTON)*, 2023

2. C Cirtoaje, SR Anton, V Ghidic, **SG Stanciu**, Investigations on Liquid Crystal Embedded CdTe Quantum Dots with Spectrally Resolved Confocal Laser Scanning Microscopy, In *23rd International Conference on Transparent Optical Networks (ICTON)*, 2023
3. D.E Tranca, A. Sobetkii, R. Hristu, S.R Anton, **S.G Stanciu**, E. Fiorentis, E. Vasile, C.K Banica, G.A Stanciu Mechanical and Optical Investigations of Cr Thin Films Deposited on Si Substrate, 23rd International Conference on Transparent Optical Networks (ICTON), 2023
4. S. R. Anton, E. Fu, D. E Tranca, **S.G Stanciu**, A. Toma, C. V. Sammut, Z. Hu, G.A Stanciu, Surface Roughness and Optical Characterization of Nanoporous Silver Films Synthesized by One-Step Dealloying, In *23rd International Conference on Transparent Optical Networks (ICTON)*, 2023
5. R. Hristu, **S.G Stanciu**, D.E Tranca, L.G. Eftimie, A. Enache, G. A Stanciu, Collagen Organization in Second Harmonic Generation Images for the Assessment of Thyroid Nodule Capsular Invasion, In 23rd International Conference on Transparent Optical Networks (ICTON), 2023
6. S. G. Stanciu, R. Hristu, G. A Stanciu, D. E. Tranca, L. Eftimie, A. Dumitru, M. Costache, H. A. Stenmark, J. M. Bueno, P. Bianchini, E.M.M. Manders, Super-Resolved Non-linear Optical Microscopy: Architectures, Advantages and Perspectives, In *23rd International Conference on Transparent Optical Networks (ICTON)*, 2023
7. **Stanciu, S. G.**, Tranca, D. E., Pastorino, L., Boi, S., Song, Y. M., Yoo, Y. J., Ishii, S., Yang, F., Hristu, R., Stanciu, G. A. (2019, October). Quantitative imaging of advanced nanostructured materials with scattering-type scanning near field optical microscopy. In *Fourth International Conference on Applications of Optics and Photonics* (Vol. 11207, p. 112071K). International Society for Optics and Photonics.
8. Hristu, R., Paun, B., Eftimie, L., **Stanciu, S. G.**, Tranca, D. E., & Stanciu, G. A. (2018, July). Changes in the collagen structure of thyroid nodule capsules determined by polarization-resolved second harmonic generation microscopy. In *2018 20th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
9. Stanciu, G. A., Tranca, D. E., Hristu, R., **Stanciu, S. G.**, Holban, A. M., Toma, A., & Stoichita, C. (2018, July). A new technique in scanning near field optical microscopy used for investigations on the biological samples. In *2018 20th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-3). IEEE.
10. **Stanciu, S. G.**, Hristu, R., Dumitru, A., Buga, R. M., Totu, T., Popescu, M., & Costache, M. (2018, July). Towards automated tissue characterization using parallel bag-of-features experts dealing with two-photon excitation fluorescence and second harmonic generation microscopy datasets. In *2018 20th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
11. Tranca, D. E., Stoichita, C., Hristu, R., **Stanciu, S. G.**, Sammut, C. V., & Stanciu, G. A. (2018, July). Nanoscale Investigations of Optical Fiber by Using Scattering Scanning Near-Field Optical Microscopy. In *2018 20th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-3). IEEE.
12. Ünay, Devrim, and **Stefan G. Stanciu**. "Robustness of sift feature descriptors to imaging parameters in laser scanning microscopy." *2018 26th Signal Processing and Communications Applications Conference (SIU)*. IEEE, 2018.

13. Ávila, F. J., **Stanciu, S. G.**, Costache, M., & Bueno, J. M. (2017, June). Local enhancement of multiphoton images of skin cancer tissues using polarimetry. In *The European Conference on Lasers and Electro-Optics* (p. CL_P_3). Optical Society of America.
14. Stanciu, G. A., Tranca, D. E., **Stanciu, S. G.**, Stoichita, C., & Hristu, R. (2017, July). Nanoscale imaging by using label free microscopy techniques. In *2017 19th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
15. **Stanciu, S. G.**, Bueno, J. M., Tranca, D. E., Ávila, F. J., Hristu, R., & Stanciu, G. A. (2017, June). Correlative investigations of biological specimens using label free far-field and near-field microscopy techniques. In *The European Conference on Lasers and Electro-Optics* (p. CL_5_4). Optical Society of America.
16. Stanciu, G. A., Tranca, D. E., Hristu, R., **Stanciu, S. G.**, Stoichita, C., & Toma, A. (2016, July). Nonlinear optical effects used for investigations on biological samples at micro and nanoscale. In *2016 18th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-3). IEEE.
17. **Stanciu, S. G.**, Boriga, R., Dascalescu, A. C., Hristu, R., & Stanciu, G. A. (2016, June). Bag-of-features approaches for combined classification of laser scanning microscopy and spectroscopy data sets. In *2016 International Conference Laser Optics (LO)* (pp. S2-13). IEEE.
18. Dragoi, I. C., Stanciu, S. G., Coltuc, D., Tranca, D. E., Hristu, R., & Stanciu, G. A. (2015). On packing laser scanning microscopy images by reversible watermarking: A case study. In *2015 23rd European Signal Processing Conference (EUSIPCO)* (pp. 66-70). IEEE.
19. Ionita, G. M., Coltuc, D., **Stanciu, S. G.**, & Tranca, D. E. (2015, October). Automatic moiré pattern removal in microscopic images. In *2015 19th International Conference on System Theory, Control and Computing (ICSTCC)* (pp. 776-779). IEEE.
20. **Stanciu, S. G.**, Hristu, R., Tranca, D. E., & Stanciu, G. A. (2015, July). Bags of features for classification of Laser Scanning Microscopy data. In *2015 17th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
21. Hristu, R., Tofail, S. A., **Stanciu, S. G.**, Tranca, D. E., & Stanciu, G. A. (2014, July). Hydroxyapatite surface charge investigated by scanning probe microscopy. In *2014 16th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
22. **Stanciu, S. G.**, Tranca, D. E., Tarpani, L., Stanciu, G. A., Hristu, R., & Latterini, L. (2014, July). Investigations on organic fluorophore doped silica nanoparticles by apertureless scanning near-field optical microscopy. In *2014 16th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-4). IEEE.
23. Stanciu, G. A., Tranca, D. E., Hristu, R., Stoichita, C., & **Stanciu, S. G.** (2013, June). Investigations at nanoscale by using fluorescence in apertureless scanning near field microscopy. In *2013 15th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-3). IEEE.
24. Stanciu, G. A., Stoichita, C., Hristu, R., **Stanciu, S. G.**, & Tranca, D. E. (2012, July). Metallic samples investigated by using a scattering near field optical microscope. In *2012 14th International Conference on Transparent Optical Networks (ICTON)* (pp. 1-3). IEEE.

25. Hristu, R., Polychroniadis, E. K., **Stanciu, S. G.**, & Stanciu, G. A. (2011, June). Investigations on SiC by using nonlinear effects in scanning laser microscopy. In *2011 13th International Conference on Transparent Optical Networks* (pp. 1-4). IEEE.
26. Stanciu, G. A., Hristu, R., **Stanciu, S. G.**, Kwon, O. D., & Kim, D. K. (2010, June). Optical induced current technique used to investigate the photonic quantum ring laser. In *2010 12th International Conference on Transparent Optical Networks* (pp. 1-3). IEEE.
27. **Stanciu, S. G.**, Coltuc, D., Stanciu, G. A., Andreadou, A., Mantzari, A., & Polychroniadis, E. K. (2011, June). Automatic estimation of stacking fault density in SiC specimens imaged by transmission electron microscopy. In *2011 13th International Conference on Transparent Optical Networks* (pp. 1-4). IEEE.
28. Stanciu, G. A., Stoichita, C., & **Stanciu, S. G.** (2009, June). Scanning laser microscopy: From far field to near field. In *2009 11th International Conference on Transparent Optical Networks* (pp. 1-5). IEEE.
29. **Stanciu, S. G.**, Hristu, R., Boriga, R., & Stanciu, G. (2009, June). Feature based recognition of photonic devices in images obtained by confocal scanning laser microscopy. In *2009 11th International Conference on Transparent Optical Networks* (pp. 1-4). IEEE.
30. Sachelarie, D., Predusca, G., Stanciu, G. A., & **Stanciu, S. G.** (2008, May). Tunneling at emitter periphery in silicon nitride passivated InP/InGaAs HBTs. In *2008 20th International Conference on Indium Phosphide and Related Materials* (pp. 1-4). IEEE.
31. Stanciu, G. A., **Stanciu, S. G.**, Hristu, R., Kim, D. K., & Kwon, O. D. (2008, December). Photonic-corrall-mode quantum ring lasers investigated by laser scanning microscopy and near field microscopy. In *2008 2nd ICTON Mediterranean Winter* (pp. 1-4). IEEE.
32. Stanciu, G. A., **Stanciu, S. G.**, Hristu, R., Kwon, O. D., & Kim, D. K. (2008, June). Investigation on photonic-corrall-mode quantum ring lasers by laser scanning microscopy. In *2008 10th Anniversary International Conference on Transparent Optical Networks* (Vol. 4, pp. 40-42). IEEE.
33. **Stanciu, S. G.**, & Friedmann, J. (2008, December). Compensating the effects of light attenuation in confocal microscopy by histogram modelling techniques. In *2008 2nd ICTON Mediterranean Winter* (pp. 1-5). IEEE.
34. Sachelarie, D., **Stanciu, S. G.**, & Stanciu, G. A. (2007, December). Atomic force microscopy analysis of orientation effect on InP-based heterojunction bipolar transistors. In *2007 ICTON Mediterranean Winter Conference* (pp. 1-2). IEEE.
35. **STANCIU, S. G.**, et al. Investigation on CdS: Mn quantum dots using scanning laser microscopy. In: *2007 ICTON Mediterranean Winter Conference*. IEEE, 2007. p. 1-4.
36. Stanciu, G., **Stanciu, S. G.**, Dan, C., Paraskevopoulos, K. M., Chatzistavrou, X., Kontonasaki, E., & Koidis, P. (2006). Surface Topography Characterization of Apatite Formation on Bioactive Glass Modified Dental Ceramics Using Confocal Laser Scanning CLSM) and Environmental Scanning Electron Microscopy (ESEM). In *Key Engineering Materials* (Vol. 309, pp. 689-692). Trans Tech Publications Ltd.

BOOK CHAPTERS

1. Scattering-type scanning near-field optical microscopy, G. A. Stanciu, D.E. Tranca, **S.G. Stanciu**, R. Hristu, C. Stoichita, in *“Imaging Modalities for Biological and Preclinical Research: A Compendium: Volume 1”*, Eds. A. Walter, J.G Mannheim and C.J. Caruana, Online ISBN: 978-0-7503-3059-6, Print ISBN: 978-0-7503-3057-2, IOP Publishing Ltd. (2021)
2. Yang, Fang, Yuanyuan Ma, **S.G. Stanciu**, and Aiguo Wu. *Transduction Process-Based Classification of Biosensors*. in *Nanobiosensors: From Design to Applications* (2020): 23-44, 978-3-527-34510-6, Wiley.
3. **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
4. 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
5. **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, (2011) INTECH Open Access Publisher

EDITED BOOKS

1. *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
2. *Micro and Nanotechnologies for Biotechnologies* (2016), **Ed. S.G. Stanciu**, ISBN 978-953-51-2531-0, InTech Open Access Publisher
3. *Digital Image Processing*, (2012), **Ed. S.G.Stanciu**, ISBN 978-953-307-801-4 , InTech Open Access Publisher