

YIFAN JIAN, Ph.D.

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SUMMARY

Research experience in biophotonics and high-performance computing
Published **33** peer-reviewed papers with **1116** citations (h-index: **18**, i10-index **25**).
Awarded over **1.5 Million USD** research funding as Principle Investigator

EDUCATION

Simon Fraser University, Canada	Sept 2010 – April 2014
• Doctor of Philosophy , School of Engineering Science	
Thesis: Adaptive Optics Optical Coherence Tomography for <i>In Vivo</i> Retinal Imaging	
University of Shanghai for Science and Technology	Sept 2006 – July 2010
• Bachelor of Science , School of Optical-Electrical and Computer Engineering	

WORK EXPERIENCE

Assistant Professor – Oregon Health and Science University	July 2018 - Current
University Research Associate – Simon Fraser University	Sept 2014 – July 2018

RESEARCH FUNDING

-
- Artificial intelligence assisted panoramic Optical Coherence Tomography Angiography for Retinopathy of Prematurity
Principle Investigator, NIH, (R01EY031331/R01HD107494)
 - Visible-light OCT angiography, velocimetry, and oximetry for characterizing retinal vascular alterations in glaucoma
Co-Investigator, NIH, (R01031394)
 - Applications of Ultrahigh-Speed Long-Range Wide-Field OCT in Anterior Eye Diseases
Co-Investigator, NIH, (R01 EY028755)
 - Functional & Structural Optical Coherence Tomography for Glaucoma
Co-Investigator, NIH, (R01 EY023285)
 - Functional Imaging with a Practical Implementation of Ultrahigh-Speed Line-Field Optical Coherence Tomography
Principle Investigator, Research to Prevent Blindness Career Advancement Award

- Ultrawide-Field Ultrahigh-Speed Optical Coherence Tomography for Retinopathy of Prematurity
Principle Investigator, CTIP
- Wavefront Sensorless and Computational AO for High Resolution Imaging
Principle Investigator, NSERC Discovery Grant, Canada
- Real-time Volumetric OCT with GPU
Principle Investigator, NSERC Engage Grants, Canada
- Intra-operative Optical Coherence Tomography with NVIDIA Quadro K6000
Principle Investigator, NVIDIA Hardware Grant Program, USA
- Sensorless Adaptive Optics Optical Coherence Tomography for Clinical Ophthalmology
Co-PI, CIHR Project Grant, Canada
- Cellular imaging in the living retina with Adaptive Optics
Co-PI, NSERC Research Tools and Instruments, Canada
- Two photon imaging and optoporation on retinal cells
Co-PI, NSERC Research Tools and Instruments, Canada
- In vivo multi-modal cellular resolution imaging of structure and function in retinal diseases
Co-PI, CIHR Project Grant, Canada
- Advanced Optical Coherence Tomography
Co-Applicant, BC Innovation Council Ignite, Canada
- Optical imaging of retinal structure and function with cellular resolution
Collaborator, Collaborative Health Research Projects, Canada

PATENT

- M.V. Sarunic, **Y. Jian**, E.M. Cua, R.J Zawadzki, S. Bonora, “Coherence-Gated Wavefront-Sensorless Adaptive-Optics Multi-Photon Microscopy,” PCT/US 2016/051369 Filed September 12, 2016. **(Issued)**
- M.V. Sarunic, **Y. Jian**, E.M. Cua, S.T. Lee, M. Miao, “System and Method for Dynamic Focus Control.” US Patent Application #15/426,851 Filed February 07, 2017. **(Issued)**
- M.V. Sarunic, M. Heisler, M. Ju, **Y. Jian**, M.F. Beg, A. Athwal, S. Lee, “Systems and Methods for Angiography and Motion Corrected Averaging.” US Patent Application #15/ 792,171 Filed October 24, 2017

SELECTED AWARDS

- Graduate Fellowship

- Graduate Student Research Award
- Graduate International Research Travel Award
- ARVO International Travel Grant

PEER REVIEWED JOURNAL ARTICLES

1. Y Miao, M Siadati, J Song, D Ma, **Y Jian**, MF Beg, MV Sarunic, and MJ Ju, "Phase-corrected buffer averaging for enhanced OCT angiography using FDML laser," *Opt. Lett.* 46, 3833-3836 (2021)
2. S Ni, X Wei, R Ng, S Ostmo, M F. Chiang, D Huang, Y Jia, J. P Campbell, and **Y Jian**, "High-speed and widefield handheld swept-source OCT angiography with a VCSEL light source," *Biomed. Opt. Express* 12, 3553-3570 (2021)
3. Hormel TT, Jia Y, **Jian Y**, Hwang TS, Bailey ST, Pennesi ME, Wilson DJ, Morrison JC, Huang D. Plexus-specific retinal vascular anatomy and pathologies as seen by projection-resolved optical coherence tomographic angiography. *Prog Retin Eye Res.* 2020 Jul 24:100878.
4. Camino A, Zang P, Huang J, Athwal A, Ni S, Jia Y, Huang D, **Jian Y**. Sensorless adaptive-optics optical coherence tomographic angiography. *Biomed Opt Express.* 11, 3952-3967 (2020)
5. Camino A, Ng R, Huang J, Guo Y, Ni S, Jia Y, Huang D, **Jian Y**. Depth-resolved optimization of a real-time sensorless adaptive optics optical coherence tomography. *Opt Lett.* 2020 May 1;45(9):2612-2615.
6. Borkovkina S, Camino A, Janpongsri P, Sarunic MV, **Jian Y**. Real-time retinal layer segmentation of OCT volumes with GPU accelerated inferencing using a compressed, low-latency neural network. *Biomed Opt Express.* 11, 3968-3984 (2020).
7. Janpongsri W, Huang J, Ng R, Wahl DJ, Sarunic MV, **Jian Y**. Pseudo-real-time retinal layer segmentation for high-resolution adaptive optics optical coherence tomography. *J Biophotonics.* 2020 May 18;
8. Wahl DJ, Ju MJ, **Jian Y**, and Sarunic MV, "Non-invasive cellular-resolution retinal imaging with two-photon excited fluorescence," *Biomed. Opt. Express* 10, 4859-4873 (2019)
9. Wei X, Hormel TT, Pi S, Guo Y, **Jian Y**, and Jia Y, "High dynamic range optical coherence tomography angiography (HDR-OCTA)," *Biomed. Opt. Express* 10, 3560-3571 (2019)
10. DJ Wahl, P Zhang, J Mocci, M Quintavalla, R Muradore, **Y Jian**, S Bonora, MV Sarunic, and RJ Zawadzki, "Adaptive optics in the mouse eye: wavefront sensing

- based vs. image-guided aberration correction," *Biomed. Opt. Express* 10, 4757-4774 (2019)
11. R Kumar Meleppat, P Zhang, MJ Ju, SKK. Manna, **Y Jian**, EN Pugh, RJ Zawadzki, "Directional optical coherence tomography reveals melanin concentration-dependent scattering properties of retinal pigment epithelium," *J. Biomed. Opt.* 24(6) 066011 (28 June 2019)
 12. Ju MJ, Hsu D, Kwon JH, Wahl DJ, Bonora S, **Jian Y**, et al. Multi-scale and -contrast sensorless adaptive optics optical coherence tomography. *Quantitative Imaging in Medicine and Surgery.* 2019;9(5):757-68.
 13. P. Zhang, S. K. Manna, E. B. Miller, **Y. Jian**, R. K. Meleppat, M. V. Sarunic, E. N. Pugh, Jr., and R. J. Zawadzki, "Aperture phase modulation with adaptive optics: a novel approach for speckle reduction and structure extraction in optical coherence tomography", *Biomed. Opt. Express* 10, 552-570 (2019)
 14. D J. Wahl, R. Ng, M. J. Ju, **Y. Jian**, and M. V. Sarunic, "Sensorless adaptive optics multimodal en-face small animal retinal imaging," *Biomed. Opt. Express* 10, 252-267 (2019)
 15. M. J. Ju, C. Huang, D. J. Wahl, **Y. Jian**, and M. V. Sarunic, "Visible light sensorless adaptive optics for retinal structure and fluorescence imaging," *Opt. Lett.* 43, 5162-5165 (2018)
 16. M. J. Ju, M. Heisler, A. Athwal, M. V. Sarunic, and **Y. Jian**, "Effective bidirectional scanning pattern for optical coherence tomography angiography," *Biomed. Opt. Express* 9, 2336-2350 (2018)
 17. Galan A, Nedev H, Jian Y, Sarunic MV, et al. (2018) The route of administration influences the therapeutic index of an anti-proNGF neutralizing mAb for experimental treatment of Diabetic Retinopathy. *PLOS ONE* 13(6): e0199079.
 18. H. R. G.W. Verstraete, L. Bliet, M. Heisler, M. J. Ju, D. J. Wahl, M. J. Jue S. Bonora, J. Kalkman, R. J. Zawadzki, **Y. Jian***, M. Verhaegen* and M. V. Sarunic*, "Data-based Online Nonlinear Extremum-seeker for in vivo wavefront sensorless adaptive optics OCT" *Biomed. Opt. Express* 8, 2261-2275 (2017)
 19. M.J. Ju, M. Heisler, D.J. Wahl, **Y. Jian**, M. Sarunic, "Multi-scale Sensorless Adaptive Optics OCT Angiography system for In Vivo Human Retinal Imaging" *J. Biomed. Opt* 22(12), 121703 (2017)
 20. A. Galan, P. Barcelona, H. Nedev, M. Sarunic, **Y. Jian**, and H. Saragovi "Subconjunctival delivery of p75NTR antagonists reduces the inflammatory, vascular and neurodegenerative pathologies of Diabetic Retinopathy", *Invest. Ophthalmol. Vis. Sci.* 2017;58(7):2852-2862. (2017)
 21. M. Heisler, S. Lee, Z. Mammo, **Y. Jian**, M. Ju, A. Merkur, E. Navajas, C. Balaratnasingam, M Beg, M. V. Sarunic "Strip-based registration of serially acquired Optical Coherence Tomography Angiography" *J. Biomed Opt* 0001;22(3):036007.

22. D.J. Wahl, C.Y. Huang, S. Bonora, **Y. Jian***, M.V. Sarunic* “Pupil segmentation adaptive optics for in vivo fluorescence retinal imaging” *Opt. Lett.* 42, 1365-1368
23. **Y. Jian**, S. Lee, M. J. Ju, M. Cua, W. Ding, S. Bonora, R. J. Zawadzki, M. V. Sarunic,” Lens-based wavefront sensorless adaptive optics swept source OCT” *Scientific Reports* 6, 27620 (2016).
24. M. Cua, D. Wahl, Y. Zhao, S. Lee, S. Bonora, R. J. Zawadzki, **Y. Jian***, M. V. Sarunic* “Coherence-Gated Sensorless Adaptive-Optics Multiphoton Microscopy” *Scientific Reports.* 6, 32223 (2016).
25. D. J. Wahl*, **Y. Jian***, S. Bonora, R. J. Zawadzki, and M. V. Sarunic, “Wavefront sensorless adaptive optics fluorescence biomicroscope for in vivo retinal imaging in mice,” *Biomed. Opt. Express* 7(1), 1, (2016).
26. M. Cua, S. Lee, D. Miao, P. J. Mackenzie, **Y. Jian***, M. V. Sarunic*, “Retinal Optical Coherence Tomography at 1 μ m with Dynamic Focus Control and Axial Motion Tracking” *J. Biomed. Opt.* 0001;21(2):026007, (2016).
27. P F. Barcelona, N. Sitaras, A. Galan, G. Esquiva, S. Jmaeff, **Y. Jian**, M. V. Sarunic, N. Cuenca, M. Sapieha, H. U. Saragovi, “p75NTR and its ligand proNGF activate paracrine mechanisms etiological to the vascular, inflammatory, and neurodegenerative pathology of Diabetic Retinopathy” *The Journal of Neuroscience* 36(34), 8826–8841 (2016).
28. P. Zhang, A. Zam, **Y. Jian**, X. Wang, Y. Li, K. S. Lam, M. E. Burns, M. V Sarunic, E. N. Pugh., “In vivo wide-field multispectral SLO-OCT mouse retinal imager: longitudinal imaging of ganglion cells, microglia, and Müller glia, and mapping of the mouse retinal and choroidal vasculature.,” *J. Biomed. Opt.* 20(12), 126005, (2015).
29. S. Bonora*, **Y. Jian***, Pengfei Zhang, Azhar Zam, Edward Pugh, R. J. Zawadzki, and M. V. Sarunic, "Wavefront correction and high-resolution in vivo OCT imaging with an objective integrated multi-actuator adaptive lens," *Opt. Express* 23, 21931-21941 (2015)
30. K. Wong*, **Y. Jian***, M. Cua, S. Bonora, R. J. Zawadzki, and M. V. Sarunic, “In vivo imaging of human photoreceptor mosaic with wavefront sensorless adaptive optics optical coherence tomography”. *Biomed. Opt. Express* 6(2), 580 (2015)
31. **Y. Jian**, J. Xu, M. A. Gradowski, S. Bonora, R. J. Zawadzki, and M. V. Sarunic, "Wavefront sensorless adaptive optics optical coherence tomography for in vivo retinal imaging in mice" *Biomed. Opt. Express* 5(2), 547 (2014)
32. J. Xu, K. Wong, **Y. Jian**, and M. V. Sarunic, " Real-time acquisition and display of flow contrast with speckle variance Optical Coherence Tomography using Graphics Processing Unit" *J. Biomed. Opt.* 19, 026001 (2014)
33. **Y. Jian**, R. J. Zawadzki, and M. V. Sarunic, "Adaptive optics optical coherence tomography for in vivo mouse retinal imaging" *J. Biomed. Opt* 18(5), 56007, (2013)

34. **Y. Jian***, K. Wong*, M. V. Sarunic, "Graphics processing unit accelerated optical coherence tomography processing at megahertz axial scan rate and high resolution video rate volumetric rendering" *J. Biomed Opt* 18, 026002, (2013)
35. M. Young, E. Lebed, **Y. Jian**, P. J. Mackenzie, M. F. Beg, and M. V. Sarunic, "Real-time high-speed volumetric imaging using compressive sampling optical coherence tomography" *Biomed. Opt. Express* 2(9): 2690-2697. (2011)

INVITED PRESENTATIONS

1. **Y.Jian**, "Clinical Sensorless Adaptive Optics OCT and Angiography", Imaging and Applied Optics Congress. (2018), Orlando, USA
2. **Y.Jian**, "Progress on Wavefront Sensorless Optical Coherence Tomography with GPU Acceleration" OSA Topical Meeting on Adaptive Optics, Imaging and Applied Optics Congress. (2015), Arlington, USA

MEDIA HIGHLIGHT

- Business Vancouver, "Commercialization a top priority for health-tech hub"
- INNOVATION magazine July/August 2018 Issue, "What is Adaptive Optics?"

CONFERENCE ABSTRACTS AND PROCEEDINGS

1. D Hsu, J H Kwon, A Athwal, Y Miao, Y Jian, M V. Sarunic, and M J Ju "Effective scanning protocol for optical coherence tomography and angiography using a 1.6 MHz Fourier domain mode-locked laser source", *Proc. SPIE 11630, Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXV*, 116301L (5 March 2021);
2. W. Newberry, D. J. Wahl, M. J. Ju, Y. Jian and M. V. Sarunic, "Progress on Multimodal Adaptive Optics OCT and Multiphoton Imaging," 2020 IEEE Photonics Conference (IPC), 2020, pp. 1-2, doi: 10.1109/IPC47351.2020.9252429.
3. Y. Jian, S. Borkovkina, W. Japongsori, A. Camino and M. V. Sarunic, "Real-time retinal layer segmentation of adaptive optics optical coherence tomography angiography with deep learning," 2020 IEEE Photonics Conference (IPC), 2020, pp. 1-2, doi: 10.1109/IPC47351.2020.9252343.
4. S Borkovkina, W Janpongsri, A Camino, M Sarunic, **Y Jian**, "Real-time retinal layer segmentation of OCT images: from graph cut to deep learning (Conference Presentation)," *Proc. SPIE 11228, Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXIV*, 1122822 (9 March 2020)
5. A Hamidi, Y Aqib Bayhaqi, I T. Schmidt, F Canbaz, **Y Jian**, Alexander Navarini, Philippe C. Cattin, Azhar Zam, "Ablation monitoring with integrated long-range OCT and Er: YAG laser for smart laserosteotomy (Conference Presentation)," *Proc. SPIE 11229, Advanced Biomedical and Clinical Diagnostic and Surgical Guidance Systems XVIII*, 1122914 (9 March 2020)

6. A Camino B, Pengxiao Z, Y Guo, R Ng, J Huang, Y Jia, D Huang, **Y Jian**, "Sensorless adaptive optics optical coherence tomographic angiography (OCTA) of the retinal plexuses (Conference Presentation)," Proc. SPIE 11228, Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXIV, 112280V (9 March 2020)
7. W Janpongsri, M Heisler, M Ju, M Sarunic, **Y Jian**; Real-time retinal layer segmentation for high-resolution OCT angiography. *Invest. Ophthalmol. Vis. Sci.* 2019;60(9):156.
8. D Wahl, M Ju, **Y Jian**, M Sarunic; Sensorless Adaptive Optics for Two Photon Excited Fluorescence Imaging of the Mouse Retina. *Invest. Ophthalmol. Vis. Sci.* 2019;60(9):4598.
9. D Hsu, J Kwon, D Wahl, M Ju, **Y Jian**, M Sarunic; High-resolution pigment and flow imaging with multi-scale sensorless adaptive optics OCT. *Invest. Ophthalmol. Vis. Sci.* 2019;60(9):3083.
10. X Wei, T Hormel, Y Guo, S Pi, **Y Jian**, Y Jia; Single-volume wide-field optical coherence tomographic angiography enabled by 400-kHz swept source laser and bidirectional scanning protocol. *Invest. Ophthalmol. Vis. Sci.* 2019;60(11):002.
11. A. Athwal, M. Heisler, M. J. Ju, R. Martens, M. Bhalla, G. Docherty, Z. Mammo, **Y. Jian**, M. Beg, E. Navajas, M. Sarunic "Multi-acquisition averaging OCT-A for diabetic retinopathy" (SPIE Photonics West 2019, San Francisco, podium presentation)
12. D. J. Wahl, S. Bonora, **Y. Jian**, R. J. Zawadzki, M. V. Sarunic, "Wavefront sensorless adaptive optics optical coherence tomography for two photon excited fluorescence imaging of the mouse retina" (SPIE Photonics West 2019, San Francisco, podium presentation)
13. D. J. Wahl, R. Ng, S. Bonora, **Y. Jian**, R. J. Zawadzki, M. V. Sarunic, "Multi-modal sensorless adaptive optics for small animal retinal imaging of volumetric cellular features with fluorescence" (SPIE Photonics West 2019, San Francisco, podium presentation)
14. J. H. Kwon, D. Hsu, **Y. Jian**, M. J. Ju, M. V. Sarunic, "Multi-Scale & -Mode Sensorless Adaptive Optics OCT for In Vivo Human Retinal Imaging" (SPIE Photonics West 2019, San Francisco, podium presentation)
15. M. Heisler, M. J. Ju, J. Lo, A. Athwal, D. Lu, Z. Mammo, **Y. Jian**, E. Navajas, S. Loncaric, M. Beg, M. Sarunic, "Deep neural network analysis of adaptive optics optical coherence tomography images" (SPIE Photonics West 2019, San Francisco, poster presentation)
16. P. Zhang, S. K. Manna, E. B. Miller, **Y. Jian**, R. K. Meleppat, M. V. Sarunic, E. N. Pugh, Jr., and R. J. Zawadzki, "Efficient speckle noise reduction by aperture phase

- modulation in adaptive optics: optical coherence tomography (APM-AO-OCT)” (SPIE Photonics West 2019, San Francisco, podium presentation)
17. M. Heisler, M. J. Ju, D. Lu, A. Athwal, G. Docherty, R. Martens, Z. Mammo, P. Prentasic, S. Lee, F. Chan, M. Bhalla, **Y. Jian**, S. Loncaric, M. Beg, E. Navajas, M. Sarunic “Deep Neural Network Based Quantification of Retinal Optical Coherence Tomography Images” (ARVO annual meeting 2018, Honolulu, USA, podium presentation)
 18. M. J. Ju, M. Heisler, D. Lu, A. Athwal, G. Docherty, R. Martens, H AKIL, **Y. Jian**, E. Navajas, M. Sarunic “Clinical retinal imaging with Sensorless Adaptive Optics OCT and Angiography” (ARVO annual meeting 2018, Honolulu, USA, podium presentation)
 19. P. Zhang, **Y. Jian**, M. Sarunic, R. J. Zawadzki, “Combined adaptive optics with optical coherence tomography and scanning laser ophthalmoscopy for in vivo mouse retina imaging” (SPIE Photonics West 2018, San Francisco, San Francisco, podium presentation.)
 20. R. K. Meleppat, P. Zhang, M. Sarunic, **Y. Jian**, R. J. Zawadzki, Ed. Pugh “Investigation of the effect of directional (off-axis) illumination on the reflectivity of retina layers in mice using swept-source optical coherence tomography” (SPIE Photonics West 2018, San Francisco, poster presentation.)
 21. M. Heisler, S. Lee, Z. Mammo, M. Ju, **Y. Jian**, Merkur, E. Navajas, C. Balaratnasingam, M. Beg, M. V. Sarunic “Multi-scale sensorless adaptive optics OCT for in vivo human retinal imaging” (SPIE Photonics West 2018, San Francisco, podium presentation)
 22. M. Heisler, S. Lee, Z. Mammo, M. Ju, **Y. Jian**, Merkur, E. Navajas, M. Beg, M. V. Sarunic “Deep neural network based segmentation of retinal optical coherence tomography images” (SPIE Photonics West 2018, San Francisco, podium presentation)
 23. C. Huang, D. Wahl, S. Bonora, **Y. Jian**, M. V. Sarunic, “Visible light wavefront sensorless adaptive optics optical coherence tomography” (Vis-SAO-OCT) (SPIE Photonics West 2018, San Francisco, podium presentation)
 24. D. J. Wahl, P. Zhang, **Y. Jian**, S. Bonora, M. V. Sarunic, R. J. Zawadzki “Image-based adaptive optics compared to wavefront sensing methods for retinal imaging” (SPIE Photonics West 2018, San Francisco, podium presentation)
 25. **Y. Jian** “GPU accelerated 4D optical coherence tomography angiography” International Congress OCT Angiography and Advances in OCT, Rome Italy, podium presentation.
 26. **Y. Jian**, H. R. G. W. Verstraete, M. Heisler, M. J. Ju, D. Wahl, L. Blik, J. Kalkman, S. Bonora, M. Verhaegen, M. V. Sarunic “Data-based online nonlinear extremum-seeker for wavefront sensorless AO OCT” (SPIE Photonics West 2017, San Francisco, podium presentation)
 27. H. R. G. W. Verstraete, M. Heisler, M. J. Ju, D. Wahl, L. Blik, J. Kalkman, S. Bonora, M. V. Sarunic, M. Verhaegen, **Y. Jian** “Real time optimization algorithm

- for wavefront sensorless adaptive OCT” (SPIE Photonics West 2017, San Francisco, podium presentation)
28. M. J. Ju, M. Heisler, S. Bonora, R.J Zawadzki, **Y. Jian**, M. V. Sarunic “Wide-field human photoreceptor morphological analysis using phase-resolved sensorless adaptive optics swept source OCT” (SPIE Photonics West 2017, San Francisco, podium presentation)
 29. D. J. Wahl, M. Cua, S. Lee, S. Bonora, R.J Zawadzki, **Y. Jian**, M. V. Sarunic “Wavefront sensorless adaptive optics optical coherence tomography for multiphoton retinal imaging” (SPIE Photonics West 2017, San Francisco, podium presentation)
 30. M. Heisler, S. Lee, Z. Mammo, **Y. Jian**, M. Ju, D. Miao, E. Raposo, D. Wahl, A. Merkur, E. Navajas, C. Balaratnasingam, M. Beg, M. V. Sarunic “GPU accelerated optical coherence tomography angiography using strip-based registration” (SPIE Photonics West 2017 San Francisco, poster presentation)
 31. J. Mocchi, M. Cua, S. Lee, **Y. Jian**, P. Pozzi, M. Quintavalla, C. Trestino, H. Verstraete, R. Muradore, D. Wahl, R. Zawadzki, M. Verhaegen, M. Sarunic, S. Bonora “Wavefront control with a Multi-Actuator Adaptive Lens in imaging applications” (SPIE Photonics West 2017, San Francisco, podium presentation)
 32. C. Huang, D. Wahl, S. Bonora, **Y. Jian**, M. V. Sarunic “Pupil segmentation adaptive optics for in-vivo mouse retinal fluorescence imaging” (SPIE Photonics West 2017, San Francisco, podium presentation)
 33. D. J. Wahl, P. Zhang, **Y. Jian**, S. Bonora, M. V. Sarunic, R. J. Zawadzki “Wavefront sensorless adaptive optics versus sensor-based adaptive optics for in vivo fluorescence retinal imaging” (SPIE Photonics West 2017, San Francisco, podium presentation)
 34. M. Jin Ju, S. Lee, M. Heisler, R. J. Zawadzki, S. Bonora, **Y. Jian**, M. V. Sarunic “Clinical grade Adaptive Optics Swept Source OCT” ARVO annual meeting 2016.Seattle, podium presentation
 35. **Y. Jian**, D. J. Wahl, M. Jin Ju, R. J. Zawadzki, S. Bonora, M. V. Sarunic “Progress on WSAO for Preclinical Retinal Imaging”, ARVO annual meeting 2016 Seattle. podium presentation
 36. D. J. Wahl, B. K. Haunerland, O. S. Mata, S. Bonora, R. J. Zawadzki, M. V. Sarunic, **Y. Jian**, “Wavefront sensorless approaches to adaptive optics for in vivo fluorescence imaging of mouse retina” SPIE Photonics West 2016, San Francisco, podium presentation
 37. S. Bonora, **Y. Jian**, R. J. Zawadzki, M. V. Sarunic “Multi-actuator adaptive lens for wavefront correction in optical coherence tomography and two-photon excitation fluorescence microscopy” SPIE Photonics West 2016. San Francisco, podium presentation

38. **Y. Jian**, M. Cua, S. Bonora, E. N. Pugh Jr., R. J. Zawadzki, M. V. Sarunic, "Coherence gated wavefront sensorless AO for two photon imaging" SPIE Photonics West 2016. San Francisco, podium presentation
39. **Y. Jian**, S. Lee, M. Cua, D. Miao, S. Bonora, R. J. Zawadzki, M. V. Sarunic, "Adaptive Optics OCT using 1060nm swept source and dual deformable lenses for human retinal imaging" SPIE Photonics West 2016. San Francisco, podium presentation
40. **Y. Jian**, K. Wong, D. Wahl, M. Cua, P. Zhang, S. Bonora, R. Zawadzki, and M. Sarunic, "Wavefront Sensorless Adaptive Optics for Ophthalmic Imaging," in Optics in the Life Sciences, OSA Technical Digest (online) (OSA, 2015), paper BW3A.4. Vancouver, BC podium presentation.
41. P. Zhang, A. Zam, **Y. Jian**, X. Wang, M. V. Sarunic, S. Bonora, E. N. Pugh, and R. J. Zawadzki, "Multimodal mouse retinal imaging system with ocular aberration correction by WSAO" in European Conferences on Biomedical Optics (2015), Munich, Germany, podium presentation.
42. I. Gorczynska, J. Migacz, R. J. Zawadzki, N. Sudheendran, **Y. Jian**, P. K. Tiruveedhula, A. Roorda and J. S. Werner, "En face projection imaging of the human choroidal layers with tracking SLO: swept source OCT system and OCT angiography methods" in European Conferences on Biomedical Optics (2015), Munich, Germany, podium presentation
43. M.V. Sarunic, D. Wahl, M. Cua, S. Lee, Y. Zhao, R. Zawadzki, S. Bonora, **Y. Jian**, "Two Photon Imaging of Mouse Retina with Wavefront Sensorless Adaptive Optics" 29th IEEE Photonics Conference, Honolulu, podium presentation.
44. **Y. Jian**, K. Wong, M. Cua, S. Bonora, R.J. Zawadzki, M. V. Sarunic, "WSAO OCT with real time axial tracking for imaging human retina" in ARVO annual meeting, 2015, Denver, podium presentation.
45. D. J. Wahl, **Y. Jian**, R. J. Zawadzki, M. V. Sarunic, "Wavefront sensorless adaptive optics fluorescence imaging in mouse retina" in ARVO annual meeting, 2015, Denver, poster presentation
46. Z. mammo, C. Balaratnasingam, J. Xu, P. Yu, **Y. Jian**, D. Albiani, A. Merkur, D. Yu, M. V. Sarunic, "Evaluating the Utility of Speckle-Variance Optical Coherence Tomography for Assessing the Human Macula" in ARVO annual meeting, 2015, Denver, podium presentation.
47. R. J. Zawadzki, P. Zhang, A. Zam, E. Miller, R. S. Jonnal, S. H. Lee, D. Y. Kim, **Y. Jian**, M. V. Sarunic, J. S. Werner, M. Burns and E. N. Pugh, Jr. "Adaptive-optics SLO imaging combined with phase-variance OCT for precise 3D localization of fluorescent cells in the mouse retina" in ARVO annual meeting, 2015, Denver, podium presentation.
48. M. Cua, X. Liu, D. Miao, S. Lee, S. Lee, S. Bonora, R. J. Zawadzki, P. J. Mackenzie, **Y. Jian**, "Automatic optimization high-speed high-resolution OCT

- retinal imaging at 1 μ m,” in SPIE BiOS, p. 93071D,. San Francisco, podium presentation.
49. **Y. Jian**, K. Wong, M. Cua, J. Xu, S. Bonora, R. J. Zawadzki, M. Sarunic, “Wavefront sensorless adaptive optics optical coherence tomography for in vivo imaging of human photoreceptors”, presented at SPIE, Photonics West, Feb 9-11, 2015. San Francisco, podium presentation.
 50. P. Zhang, A. Zam, **Y. Jian**, X. Wang, M. E. Burns, M. V. Sarunic, E. N. Pugh, and R. J. Zawadzki, “Multispectral scanning laser ophthalmoscopy combined with optical coherence tomography for simultaneous in vivo mouse retinal imaging,” in SPIE BiOS, p. 93070H, San Francisco, podium presentation..
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