

LIST OF RESEARCH CONTRIBUTIONS

YUNLONG SHENG

1. Refereed journal publications

79. B. Ung and Y. Sheng, "Interference of surface waves in a metallic nanoslit", *Optics Express* vol. 15, no.3 1182-1191 (2007).
78. M. Bernier, D. Faucher, R. Vallée, A. Salimonia, G. Androz, Y. Sheng, and S. L. Chin, "Bragg gratings photoinduced in ZBLAN fibers by femtosecond pulses at 800 nm", *Opt. Letters*, Vol. 32, No. 5, 454-457 (2007)
77. P. Bareil, Y. Sheng and A. Chiou, 'Local stress distribution on the surface of a spherical cell in an optical stretcher', *Optics Express*, vol.14, no. 25, 12503-12509 (2006);
76. C. M. Wang, B. Ung, Y. Sheng, and J. Y. Chang, "Enhanced Transmission through Nano-Aperture on a Tapered Metallic Substrate", *Opt. Commun.* 265(2), p.678-682 (2006)
75. G. Tremblay and Y. Sheng, "Effects of the phase-shift split on phase-shifted fiber Bragg gratings", *J. Opt. Soc. Am. B*, vol.25, no.8, 1511-1516, (2006)
74. H. Li, M. Li, K. Ogusu, Y. Sheng, and J. E. Rothenberg, "Optimization of a continuous phase-only sampling for high channel-count fiber Bragg gratings", *Optics Express*, vol.14, No.8, 3152-3160 (2006)
73. J. E. Rothenberg, H. Li, J. Popelek, J. Zweiback and Y. Sheng, "A novel phase-only sampled 45-channel fiber Bragg grating written with diffraction-compensated phase mask", *Optics Lett.*, vol.31, No.9, 1199-1201 (2006).
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71. Y. Ouyang, Y. Sheng M. Bernier and G. Paul-Hus, "Iterative layer-peeling algorithm for designing fiber Bragg gratings with fabrication constraints", *J. Lightwave Tech.* vol. 23, No.11 3924-3930 (2005)
70. Y. Sheng and L. Sun, "Near-field diffraction of irregular phase gratings with multiple phase-shifts," *Opt. Express* 13, 6111-6116 (2005),
69. H. Li, Y. Nakamura, K. Ogusu, Y. Sheng and J. E. Rothenberg, "Influence of cladding-mode coupling losses on the spectrum of a linearly chirped multi-channel fiber bragg grating" *Optics Express*, Vol. 13, No. 4 1283-1290 (2005)
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67. Y. Sheng and P. Ambs, 'Progress in Diffractive Optics', Guest Editorial, *Opt. Eng.* Vol.43, No.11, 2503-2504, (2004)
66. Y. Sheng, Y. Qiu and J. Wang, 'Diffraction of phase mask with stitching errors in fabrication of fiber Bragg gratings', *Opt. Eng.*, Special section on Diffractive Optics, Vol.43, No.11, 2570-2574, (2004)
65. H. Li, T. Kumagai, K. Ogusu and Y. Sheng, 'Advanced design of multi-channel fiber Bragg grating based on a layer-peeling method', *J. Opt. Soc. Am. B*, vol. 21, 1929 (2004)
64. J. N. Gillet and Y. Sheng, "Multiplexed Computer-Generated Holograms with Polygonal-Aperture Layouts Optimized by Genetic Algorithm", *Appl. Opt.-IP*, Vol. 42, No. 20, 4156-4165, (2003).
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62. H. Li and Y. Sheng, "Direct Design of Multi-channel Fiber Bragg Grating with Discrete Layer-peeling Algorithm", *IEEE Photonics Tech. Letter*, vol.15, No9, 1252-1254 (2003)
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27. G. Premont and Y. Sheng, "Fast determination of the proper center for the circular harmonic filter using the simulated annealing", *Appl. Opt.* **32**, 3116-3121 (1993).
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2. Patent

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3. Books and book chapters:

4. Y. Sheng, Y. Zhang and S. Zhuang, "Optical Information Processing", Proceeding ICO20, ISBN-10 0819460583, (SPIE Press, 2006)
3. Y. Sheng, D. Hsu, C. Yu and B. Lee, "Holography, Diffractive optics and Applications`II", SPIE Proceeding Series Vol. 5636, (SPIE press, 2004).
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4. Articles selected to publish in books

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1. Y. Sheng, H. H. Arsenault and B. Bedard, "Optical Hypercube Interconnections using Mirrors and Corner-Cube Arrays", in the book "Photonic Networks, Components and Applications" J. Chrostowski and J. Terry Ed. (World Scientific, Singapore, 1991).

4. Invited conferences:

27. Y. Sheng, 'Research on nano- and near field diffraction for bio-photonics applications', Shanghai Institute of Optics and Fine Mechanics, China (2005)
26. Y. Sheng, 'Research in the area of Optical Signal Processing' ShenZhun University, China (2005)
25. Y. Sheng, 'Diffraction Optics', National Central University, Taiwan (2004)
24. Y. Sheng, 'Near field of diffraction of the phase mask for fiber Bragg gratings', Tiajing University, China (2004)
23. Y. Sheng, "Research on phase mask for fabrication of fiber Bragg gratings", Nakai Unievsrity, China (2002)
22. Y. Sheng, "New application of diffractive optics to telecommunications", Beijing Normal University, China (2002)
21. Y. Sheng , "Multisensor image fusion", Mongoria Normal University, China (2002).

- 20 Y. Sheng, "Optical processing based on image features" (**Invited**), OSA Annual Meeting (1998)
19. Y. Sheng, L. G. Neto and D. Roberge, "Full range complex amplitude and phase-only spatial light modulator using twist nematic liquid crystal television", (invited paper), OIT'98, Topical Meeting of ICO, Tianjin, China August, (1998).
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2. Y. Sheng, "Optical Computing", Centro de Investigacions en Optica, Leon, Mexico (1988).
1. Y. Sheng, "Invariant moments for pattern recognition", OSA 1986 Annual Meeting, Seattle, J.Opt.Soc.Am. A, **3**, 13, p85 (1986).

5. Conference proceedings

13. H. Li, M. Li, K. Ogusu, Y. Sheng and J. R. Rothenberg "Optimization of a Continuous Phase-Only Sampling for 81-channel Fiber Bragg Gratings" IEEE LEOS Topical Meeting, Quebec, (2006)
12. Y. Sheng, J. E Rothenberg, H. Li, Y. Wang and J. Zweiback,, "Split of phase-shifts in phase mask for proximity side-writing fiber Bragg gratings", Topical Meeting in Diffractive and micro Optics, OSA, (2004).
11. Y. Ouyang and Y. Sheng, "Design FBG using iterative layer-peeling algorithm", OFC04, paper MF32, (2004).
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