

# Maciej Wielgus

## Lista publikacji z dnia 31 października 2015

### Książki i monografie

1. Trusiak M., Patorski K., Wielgus M., **Fast adaptive processing of low quality fringe patterns by automated selective reconstruction and enhanced fast empirical mode decomposition**, [w:] *Fringe 2013*, Springer-Verlag, Stuttgart 2014, s. 185-190.
2. Wielgus M., Patorski K., **Filtering ESPI fringes with non-local means algorithm**, [w:] *Fringe 2013*, Springer-Verlag, Stuttgart 2014, s. 317-320.
3. Wielgus M., Putz B., **Comparative analysis of image fusion performance evaluation methods for the real-time environment monitoring system**, [w:] *Advances in Intelligent Systems and Computing Vol. 184* Springer-Verlag, Bydgoszcz 2013, s. 119-126.
4. Putz B, Bartyś M., Antoniewicz A., Klimaszewski J., Kondej M., Wielgus M., **Real-time Image Fusion Monitoring System: Problems and Solutions**, [w:] *Advances in Intelligent Systems and Computing Vol. 184*, Springer-Verlag, Bydgoszcz 2013, s. 143-152.

### Publikacje w czasopismach

1. Wielgus M., Kluźniak W., Sądowski A., Narayan R., Abramowicz M., 2015, **Stable, levitating, optically thin atmospheres of Eddington-luminosity neutron stars**, *Monthly Notices of the Royal Astronomical Society* (2015): zaakceptowany
2. Wielgus M., Sunderland Z., Patorski K., 2015, **Two-frame tilt-shift error estimation and phase demodulation algorithm**, *Optics Letters* 40(15): s. 3460-3463
3. Wielgus M., Fragile. P. Ch., Wang Z., Wilson J., 2015, **Local stability of strongly magnetized black hole tori**, *Monthly Notices of the Royal Astronomical Society* 447: s. 3593-3601
4. Wielgus M., Ellis G. F. R., Vincent F., Abramowicz M., 2014, **Cosmic background radiation in the vicinity of a Schwarzschild black hole: no classic firewall**, *Physical Review D* 90: 124024
5. Wielgus M., Patorski K., Etchepareborda P., Federico A., 2014, **Continuous phase estimation from noisy fringe patterns based on the implicit smoothing splines**, *Optics Express* 22 (9): s. 10775-10791
6. Wielgus M., Patorski K., 2014, **Denoising and extracting background from fringe patterns using midpoint-based bidimensional empirical mode decomposition**, *Applied Optics* 53 (10): s. B215-B222
7. Abramowicz M., Ellis G. F. R., Horak J., Wielgus M., 2014, **The perihelion of Mercury advance and the light bending calculated in (enhanced) Newton's theory**, *General Relativity and Gravitation* 46: s. 1630
8. Borysiewicz M., Wojciechowski T., Dynowska E., Wielgus M., Bar J., Wojtowicz T., Kamińska E. , Piotrowska A., 2014, **Nanocoral ZnO films fabricated on flexible poly(vinyl chloride) using a carrier substrate**, *Thin Solid Films* 550: s. 145-148
9. Trusiak M., Wielgus M., Patorski K., 2014, **Advanced processing of optical fringe patterns by automated selective reconstruction and enhanced fast empirical mode decomposition**, *Optics and Lasers in Engineering* 52: s. 230-240

10. Stahl A., Klużniak W., Wielgus M., Abramowicz M., 2013, *Escape, capture, and levitation of matter in Eddington outbursts*, *Astronomy & Astrophysics* 555: s. A114
11. Patorski K., Wielgus M., Ekielski M., Kaźmierczak P., 2013, *AFM nanomoiré technique with phase multiplication*, *Measurement Science and Technology* 24: s. 035402
12. Trusiak M., Patorski K., Wielgus M., 2012, *Adaptive enhancement of optical fringe patterns by selective reconstruction using FABEMD algorithm and Hilbert spiral transform*, *Optics Express* 20(21): s. 23463-23479
13. Wielgus M., Stahl A., Abramowicz M., Klużniak W., 2012, *Oscillations of the Eddington capture sphere*, *Astronomy & Astrophysics* 545: s. A123
14. Stahl A., Wielgus M., Abramowicz M., Klużniak W., Yu W., 2012, *Eddington capture sphere around luminous stars*, *Astronomy & Astrophysics* 546: s. A54
15. Borysiewicz M., Dynowska E., Kolkovsky V., Dyczewski J., Wielgus M., Kamińska E., Piotrowska A., 2012, *From porous to dense thin ZnO films through reactive DC sputter deposition onto Si (100) substrates*, *Physica Status Solidi A* 209(12): s. 2463-2469
16. Wielgus M., Patorski K., 2012, *Non-local fringe image filtration: a new interferometric data filtration paradigm?*, *Photonics Letters of Poland*, 4(2): s. 66-68
17. Wengierow M., Sałbut L., Wielgus M., 2012, *Multispectral phase shifting interferometry algorithm*, *Photonics Letters of Poland*, 4(2): s. 60-62
18. Ciesielski A., Wielgus M., Klużniak W., Sądowski A., Abramowicz M., Lasota J.-P., Rebusco P., 2012, *Stability of radiation-pressure dominated disks. I. The dispersion relation for a delayed heating  $\alpha$ -viscosity prescription*, *Astronomy & Astrophysics* 538: s. A148
19. Wielgus M., Patorski K., 2011, *Evaluation of amplitude encoded fringe patterns using the bidimensional empirical mode decomposition and the 2D Hilbert transform generalizations*, *Applied Optics* 50(28): s. 5513-5523
20. Wielgus M., 2011, *Amplitude demodulation of interferometric signals with a 2D Hilbert transform*, *Challenges of modern technology*, 2(1): s. 8-11