

List of publications

- **A. Migukin**, M. Agour, and V. Katkovnik, "Phase retrieval with background compensation in 4f optical system: decoupled augmented Lagrangian technique for binary amplitude object," *Appl. Opt.* **52**, A269–A280 (2013).
- **A. Migukin**, V. Katkovnik, and J. Astola, "Advanced multi-plane phase retrieval using Graphic Processing Unit: augmented Lagrangian technique with sparse regularization," *Conf. SPIE* **8429**, 84291N, (2012).
- **A. Migukin**, "Phase retrieval with background compensation: variational inverse imaging technique for binary amplitude object", Digest of TISE seminar 2012, Tampere, Finland (2012), 36–41.
- **A. Migukin**, V. Katkovnik, and J. Astola, "Optimal phase retrieval from multiple observations with Gaussian noise: augmented Lagrangian algorithm for phase objects," *Conf. SPIE* **8082**, 80820L, (2011).
- **A. Migukin**, V. Katkovnik, and J. Astola, "Wave field reconstruction from multiple plane intensity-only data: augmented Lagrangian algorithm," *J. Opt. Soc. Am. A* **28**, 993–1002 (2011).
- **A. Migukin**, "Advanced phase retrieval: augmented Lagrangian based algorithm with sparse regularization of object phase and amplitude", Digest of TISE seminar 2011, Tampere, Finland (2011), 120–127.
- **A. Migukin**, V. Katkovnik, J. Astola, "Phase retrieval from multiple plane observations: constrained variational formalization and augmented Lagrangian recursive algorithm," WITMSE'2010, Tampere, Finland (2010).
- **A. Migukin**, V. Katkovnik, and J. Astola, "Multiple plane phase retrieval based on inverse regularized imaging and discrete diffraction transform," *AIP Conf. Proc.* **1236**, ICAPMMOI, Locarno, Switzerland (2010).
- **A. Migukin**, V. Katkovnik, and J. Astola, "3D Wave field phase retrieval from multi-plane observations," IEEE Conf. 3DTV-CON (2010).
- V. Katkovnik, **A. Migukin**, J. Astola, "3D wave field reconstruction from intensity-only data: Variational inverse imaging techniques", 9th Euro-American Workshop on Information Optics, WIO'2010, Helsinki, Finland, 2010.
- **A. Migukin**, "Multiple plane phase retrieval algorithm based on inverse regularized imaging", Digest of TISE seminar 2010, Tampere, Finland (2010), 141–149.
- V. Katkovnik, **A. Migukin** and J. Astola, "Backward discrete wavefield propagation modeling as an inverse problem: toward perfect reconstruction of wavefield distribution," *Appl. Opt.* **48**, 3407–3423 (2009).
- V. Katkovnik, **A. Migukin**, and J. Astola, "Computational inverse coherent wave field imaging," *IEEE Intern. Conf. on Image Proc.* (ICIP'2009), Cairo, Egypt (2009).
- V. Katkovnik, **A. Migukin**, and J. Astola, "Computational inverse holographic imaging: toward perfect reconstruction of wavefield distributions," Fringe'09, Nuertingen, Germany (2009).
- V. Katkovnik, **A. Migukin**, and J. Astola, "Digital 2D wavefield reconstruction based on novel two-matrix forward/backward propagation modeling," ISMTII'2009, St. Petersburg, Russia (2009), 28–34.
- **A. Migukin**, "Inverse digital holographic imaging: toward perfect reconstruction of 2D wavefield distributions based on two-matrix propagation modeling", Digest of TISE seminar 2009, Tampere, Finland (2009).
- **A. Migukin**, "Face detection on a video fragment," Materials of the All-Russian forum of students, post-graduate students and young scientists "Science and innovations at technical universities," 61–62 (2007), in Russian.
- **A. Migukin**, G.F. Malykhina, "Application of high-order statistics in fingerprint verification of a person," Report at the Microsoft Students Conference in SPbSPU, 173–175 (2007), in Russian .
- **A. Migukin**, G.F. Malykhina, "Application of f-networks for an estimation of productivity of a local network," Report at the Microsoft Students Conference in SPbSPU, 193–194 (2006), in Russian.
- **A. Migukin**, G.F. Malykhina, "Identification of the person on a voice in security systems," Report at the Microsoft Students Conference in SPbSPU, 191–192 (2006), in Russian.