

Publication and Proceedings Archive

Peer-reviewed Paper Archive (pre-2015)

2014

- V. Margoniner: "Learning Gains in Introductory Astronomy: Online Can Be as Good as Face-to-Face." *The Physics Teacher* (2014)
- S. Hillbrand: "The Next Generation BLAST Experiment." *Journal of Astronomical Instrumentation* (2014)
- S. Hillbrand: "The Detector System for the Stratospheric Kinetic Inductance Polarimeter (SKIP)." *Journal of Low Temperature Physics* (2014)

2013

- V. Sergan: "Surface localized polymer aligned liquid crystal lens." *Optics Express* (2013)

2012

- V. Sergan: "Mechanism of electric-field-induced segregation of additives in a liquid-crystal host." *Physical Review E* (2012)
- Jérôme Bürki: "A Nano-Transistor Based on Gate-Induced Thermal Switching." *International Journal of Theoretical and Applied Nanotechnology* (2012)
- M. Hossein Partovi: "Entanglement Detection Using Majorization Uncertainty Bounds." *Physical Review A* (2012)
- T. Sergan and V. Sergan: "Spatial and orientational control of liquid crystal alignment using a surface localized polymer layer." *Applied Physics Letters* (2012)
- V. Margoniner: "Galaxy-Mass Correlations on 10 Mpc Scales in the Deep Lens Survey." *The Astrophysical Journal* (2012)

- T. Sergan, V. Sergan, and R. Herrera: "In situ control of surface molecular order in liquid crystals using a localised polymer network and its application to electro-optical devices." *Liquid Crystals* (2012)
- V. Sergan: "Tunable Polymer Localized Liquid Crystal Lenses for Autostereoscopic 3D Displays." *Society for Informational Display International Symposium Digest* (2012)
- V. Margoniner: "Discovery of a Dissociative Galaxy Cluster Merger with Large Physical Separation." *The Astrophysical Journal* (2012)
- W. DeGraffenreid: "Reference lines in the optogalvanic spectra of uranium and thorium in the wavelength range 422 nm to 462 nm." *Journal of the Optical Society of America B* (2012)

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- M.Hossein Partovi: "Majorization formulation of uncertainty in quantum mechanics." *Phys. Rev. A* 84, 052117 (2011)

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- Jérôme Bürki: "The Nanoscale Free-Electron Model." Chapter published in *Handbook of Nanophysics: Principles and Methods* (2010)
- T. Sergan: "Application of Commercially Available Liquid Crystal Polymer Films for Improvement of Color and Viewing angle Performance of Twisted Nematic Devices." *Japanese Journal of Applied Physics* (2010)
- Jérôme Bürki: "Determining the Energy Barrier for Decay out of Superdeformed Bands." *Physics Letters B* (2010)
- T. Sergan and V. Sergan: "Control of the molecular pretilt angle in liquid crystal devices by using a low-density localized polymer network." *Chemical Physics Letters* (2010)

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- M.Hossein Partovi: "Equilibrium charge density on a thin curved wire," *American Journal of Physics* (2009)
- Abate, Alexandra, Wittman, D., **Margoniner, V. E.**, Bridle, S. L., Gee, Perry, Tyson, J. Anthony, Dell'Antonio, Ian P., "Shear-selected clusters

from the deep lens Survey. III. Masses from weak lensing,”
Astrophysical Journal, Vol. 702, No. 1, 2009, p. 603-613.

- M.H. Partovi: “Correlative Capacity of Composite Quantum States.”
Physical Review Letters (2009)

2008

- M.H. Partovi: “Verschränkung versus Stosszahlansatz : Disappearance of the Thermodynamic Arrow in a High-Correlation Environment.”
Physical Review E (2008)
- V. Margoniner: “Photometric Redshifts and Signal-to-Noise Ratios.”
Astrophysical Journal (2008)
- V. Margoniner: “Probing the Relation Between X-Ray-Derived and Weak-Lensing-Derived Masses for Shear-Selected Galaxy Clusters. I. A781.”
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- T. Sergan and V. Sergan: “High-Performance Active Liquid Crystalline Shutters for Stereo Computer Graphics and Other 3-D Technologies.”
Journal of Display Technology (2007)
- V. Sergan and H. Garcia: “Wide-angle achromatic prism beam steering for infrared countermeasures and imaging applications: solving the singularity problem in the two-prism design.”
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- M.H. Partovi: “Intrinsic comparative statics of a general class of profit-maximizing rate-of-return regulated firms.”
Oxford Economic Papers (2007)
- E. Gibson: “The HKS experiment on Λ -hypernuclear spectroscopy via electroproduction at JLab.”
Nuclear Physics A (2007)
- M.H. Partovi: “Existence of a Universal Comparative Statics Matrix for Differentiable Optimization Problems.”
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- E. Gibson: “Determination of the Pion Charge Form Factor at $Q_2 = 1.60$ and 2.45 (GeV/c)².”
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- E. Gibson: "Pionic charge exchange on the proton from 40 to 250 MeV." *Physics Letters B* (2006)
- M.H. Partovi: "A Complete Theory of Comparative Statics for Differentiable Optimization Problems." *Metroeconomica* (2006)
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- E. Gibson: " $\pi\pm p$ differential cross sections at low energies." *Physics Letters B* (2006)
- R. Phelps: "CCD Photometry of the Globular Cluster ESO 452-SC11." *The Astronomical Journal* (2006)
- C. Taylor: "The Faint End Luminosity Function of Compact Galaxy Groups." *Astronomy & Astrophysics* (2006)
- R. Phelps: "Photometry and Spectroscopy of Old, Outer Disk Star Clusters: vdB-Hagen 176, Berkeley 29, and Saurer 1." *The Astronomical Journal* (2006)

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- E. Gibson: "The $\pi\rightarrow\pi\pi$ process in nuclei and the restoration of chiral symmetry." *Nuclear Physics A* (2005)
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- W. DeGraffenreid: "Beam-loss Spectroscopy of Cold Collisions in a Brightened Sodium Beam." *Physical Review A* (2004)
- V. Sergan: "FAST SWITCHING POLYMER STABILIZED SPLAY CELL (PSSC)." *Molecular Crystals Liquid Crystals* (2004)

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- R. Phelps and J. Ybarra: "An [S II] Survey of the Rosette Molecular Cloud." The Astronomical Journal (2004)
- T. Sergan: "Switchable Broadband Achromatic Half-wave plate with Nematic Liquid Crystals." Optics Letters (2004)
- T. Sergan: "Lyotropic Chromonic Liquid Crystals for Optical Applications – an Optical Retardation plate for Twisted Nematic Cells." Molecular Crystals Liquid Crystals (2004)
- M.H. Partovi: "Principle Portfolios: Recasting the Efficient Frontier." Economics Bulletin (2004)
- T. Sergan: "Liquid Crystalline Device with Reflective Wire Grid Polarizer." Molecular Crystals Liquid Crystals (2004)
- T. Sergan: "Negative Birefringence Films from Non-Traditional Materials." Molecular Crystals Liquid Crystals (2004)

Proceedings

- R. K. Kaul, **M. S. Block**, “Numerical studies of various Néel-VBS transitions in $SU(N)$ anti-ferromagnets,” J. Phys.: Conf. Ser. 640 012041 (2015)