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Education

D.Sc., Optics & Electro-Optical Systems, Southeastern Institute of Technology

Key Interests

Image Operators | Image Analysis | Multi-domain Data Retrieval | Pulse-coupled Neural Network

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SELECT PUBLICATIONS

- › J. M. Kinser, Image operators: image processing in Python (CRC Press, 2018).
- › J. M. Kinser, Computational methods for bioinformatics: Python 3.4 (2017).
- › T. Linblad *et al.*, Image processing using pulse-coupled neural networks (Springer-Verlag, London, ed. 3, 2013).
- › J. M. Kinser, Kinematic labs with mobile devices (Morgan & Claypool Publishers, 2015), IOP Concise Physics.

Research Focus

Data is available through many different types of sensors. A single event can generate images, text, numerical data, video, and audio data. Furthermore, an event can be linked to previous knowledge and published works. Common database search engines tend to extract results from single domains and combine the results after the initial searches. The research at Mason is developing methods by which to concurrently query multiple domains. The different types of data interact during the query. The purpose is to identify relationships which are difficult to detect in the current methods.

Current Projects

- A recent ongoing project is to develop a concise and efficient mathematical language for image analysis protocols.