

## Publications for Richard Murphy

### 2018

Windrim, L., Ramakrishnan, R., Melkumyan, A., Murphy, R. (2018). A Physics-Based Deep Learning Approach to Shadow Invariant Representations of Hyperspectral Images. *IEEE Transactions on Image Processing*, 27(2), 665-677. <a href="http://dx.doi.org/10.1109/TIP.2017.2761542">[More Information]</a>

Schneider, S., Murphy, R., Melkumyan, A. (2018). A probabilistic framework for fusing classifications derived from multi-temporal hyperspectral imagery. *Whispers 2018*, Piscataway: Institute of Electrical and Electronics Engineers (IEEE).

Windrim, L., Melkumyan, A., Murphy, R., Chlingaryan, A., Ramakrishnan, R. (2018). Pretraining for Hyperspectral Convolutional Neural Network Classification. *IEEE Transactions on Geoscience and Remote Sensing*, 56(5), 2798-2810. <a href="http://dx.doi.org/10.1109/TGRS.2017.2783886">[More Information]</a>

Murphy, R., Whelan, B., Chlingaryan, A., Sukkarieh, S. (2018). Quantifying leaf-scale variations in water absorption in lettuce from hyperspectral imagery: a laboratory study with implications for measuring leaf water content in the context of precision agriculture. [Forthcoming]. *Precision Agriculture*. <a href="http://dx.doi.org/10.1007/s11119-018-9610-5">[More Information]</a>

### 2017

McElroy, D., Hochuli, D., Doblin, M., Murphy, R., Blackburn, R., Coleman, R. (2017). Effect of copper on multiple successional stages of a marine fouling assemblage. *Biofouling*, 33(10), 904-916. <a href="http://dx.doi.org/10.1080/08927014.2017.1384468">[More Information]</a>

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Windrim, L., Ramakrishnan, R., Melkumyan, A., Murphy, R. (2017). Hyperspectral CNN Classification with Limited Training Samples. *28th British Machine Vision Conference (BMVC) 2017*, London: BMVC 2017 organisers.

Silversides, K., Murphy, R. (2017). Identification of marker shale horizons in Banded Iron Formation: linking measurements of downhole natural gamma-ray with measurements from reflectance spectrometry of rock cores. *Near Surface Geophysics*, 15(2), 141-153. <a href="http://dx.doi.org/10.3997/1873-0604.2016046">[More Information]</a>

Murphy, R., Silversides, K. (2017). Investigating variations in background response in measurements of downhole natural gamma in a banded iron formation in the Pilbara, Western Australia. *Journal of Applied Geophysics*, 137, 118-127. <a href="http://dx.doi.org/10.1016/j.jappgeo.2016.12.018">[More

Information]</a>

Uezato, T., Murphy, R., Melkumyan, A., Chlingaryan, A. (2017). Spectral curve-based endmember extraction method. *7th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (Whispers 2015)*, Tokyo: Institute of Electrical and Electronics Engineers (IEEE). <a href="http://dx.doi.org/10.1109/WHISPERS.2015.8075415">[More Information]</a>

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Chlingaryan, A., Melkumyan, A., Murphy, R., Schneider, S. (2016). Automated multi-class classification of remotely sensed hyperspectral imagery via Gaussian processes with a non-stationary covariance function. *Mathematical Geosciences*, 48(5), 537-558. <a href="http://dx.doi.org/10.1007/s11004-015-9622-x">[More Information]</a>

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