

**Gamon Publications\_190105 (\*Asterisks indicate student authors)**

- Gholizadeh H, Gamon JA, Zygielbaum AI, Hmimina GY, Yu R, \*Moore RM, Helzer CJ, Townsend PA, Schweiger AK, Cavender-Bares J (2018) Detecting prairie biodiversity with airborne remote sensing. *Remote Sensing of Environment*. 221:38-49
- \*Williamson SN, Anslow FS, Clarke GCK, Gamon JA, Jarosch AH, Hik DS (2018) Spring warming in the southwest Yukon is not amplified by the snow albedo feedback” *Scientific Reports*, 8(1): 9000. DOI: 10.1038/s41598-018-27348-7
- \*Gonzalez del Castillo E, Sanchez-Azofeifa A, Paw-U KT, Gamon JA, Quesada-Avendaño M (2018) Integrating proximal broad-band vegetation indices and carbon fluxes to model gross primary productivity in a tropical dry forest. *Environmental Research Letters*. 13 (2018) 065017. <https://doi.org/10.1088/1748-9326/aac3f0>
- \*Wang R, Gamon JA, Schweiger AK, Cavender-Bares J, \*Kothari S, Townsend PA, Zygielbaum AI (2018) Influence of species richness, evenness and composition on optical diversity: a simulation study. *Remote Sensing of Environment*. 211, 218-228
- Filella I., Zhang C., Seco R., Potosnak M., Guenther A., Karl T., Gamon J, Pallardy S., Gu L., Kim S., Balzarolo M., Fernandez-Martinez M., Peñuelas J. (2018) A MODIS photochemical reflectance index (PRI) as an estimator of isoprenoid emissions in a temperate deciduous forest. *Remote Sensing*. 10(4):557
- Gamon J, Hmimina G, Miao G, Guan K, Springer K, Wang R, Yu R, Gholizadeh H, Moore R, Walter-Shea E, Arkebauer T, Suyker A, Franz T, Wardlow B, Wedin D (in press) Imaging spectrometry and fluorometry in support of FLEX: what can we learn from multi-scale experiments? *IGARSS Proceedings*, Valencia 2018
- Schweiger AK, Cavender-Bares J, Townsend PA, Hobbie SE, Madritch MD, \*Wang R, Tilman D, Gamon JA (2018) Leaf spectral diversity explains productivity, functional and phylogenetic diversity in a grassland experiment. *Nature Ecology & Evolution*. 2:976-982. doi: 10.1038/s41559-017-0191 PDF
- Gholizadeh H, Gamon JA, Zygielbaum AI, \*Wang R, Schweiger AK, Cavender-Bares J. (2018) Remote sensing of biodiversity: data dimension reduction and soil correction methods to improve assessment of  $\alpha$ -diversity (species richness) in prairie ecosystems. *Remote Sensing of Environment*, 206: 240–253. <https://doi.org/10.1016/j.rse.2017.12.014>
- \*Kothari, S, Cavender-Bares, J, \*Bitan, K, Verhoeven AS, \*Wang R, Montgomery RA, Gamon JA, (2018) Community-wide consequences of variation in photoprotective physiology in prairie plants. *Photosynthetica*. 56(1): 455-467. DOI: 10.1007/s11099-018-0777-9
- \*Wang R, Gamon JA, Cavender-Bares J, Townsend PA, Zygielbaum AI (2017) The spatial sensitivity of optical diversity-biodiversity relationship: an experimental test in a prairie grassland (Cedar Creek). *Ecological Applications* DOI: 10.1002/eap.1669

- \*Springer K, \*Wang R, Gamon J (2017) Parallel Seasonal Patterns of Photosynthesis, Fluorescence, and Reflectance Indices in Boreal Trees. *Remote Sensing* 9:691, doi:10.3390/rs9070691 (FLEX Special Issue)
- Cavender-Bares J, Gamon JA, Hobbie S, Madritch M, Meireles J, Schweiger A, Townsend P (2017) Harnessing plant spectra to integrate the biodiversity sciences across biological and spatial scales. *American Journal of Botany*. 104(7):1-4
- Gitelson A, Gamon JA, Solovchenko A (2017) Multiple drivers of seasonal change in PRI: Implications for photosynthesis. 2. Stand level *Remote Sensing of Environment*, 190: 198–206, <http://dx.doi.org/10.1016/j.rse.2016.12.015>
- Gitelson A, Gamon JA, Solovchenko A (2017) Multiple drivers of seasonal change in PRI: Implications for photosynthesis. 1. Leaf level *Remote Sensing of Environment* 191:110-116. <http://dx.doi.org/10.1016/j.rse.2016.12.014>
- \*Scott N. Williamson, David S. Hik, John A. Gamon, Alexander H. Jarosch, Faron S. Anslow, Garry Clarke, Scott Rupp (2017) Spring and summer monthly MODIS LST is inherently biased compared to air temperature in snow covered sub-Arctic mountains. *Remote Sensing of Environment* 189: 14–24. <http://dx.doi.org/10.1016/j.rse.2016.11.009>
- Gamon JA, Huemmrich KF, \*Wong CYS, Ensminger I, Garrity S, Hollinger DY, Noormets A, Peñuelas J (2016) A remotely sensed pigment index reveals photosynthetic phenology in evergreen conifers. *Proceedings of the National Academy of Sciences*. 113 (46), 13087-13092 doi:10.1073/pnas.1606162113
- \*Wehlage DC, Gamon JA, Thayer D, Hildebrand D (2016) Interannual variability in dry mixed-grass prairie yield: a comparison of MODIS, SPOT, and field measurements. *Remote Sensing* 8, 872; doi:10.3390/rs8100872
- \*Scott N. Williamson, Isabel C. Barrio, David S. Hik, John A. Gamon, (2016) Phenology and species determine growing season albedo increase at the altitudinal limit of shrub growth in the sub-Arctic. *Global Change Biology*. doi: 10.1111/gcb.13297
- \*Nestola E, Calfapietra C, \*Emmerton CA, \*Wong CY, \*Thayer DR, Gamon JA (2016), Monitoring grassland seasonal carbon dynamics, by integrating MODIS NDVI, proximal optical sampling, and eddy covariance measurements. *Remote Sensing* 8:260, doi:10.3390/rs8030260
- \*Wang R, Gamon JA, \*Emmerton CE, Hitao L., \*Nestola E., Pastorello G, \*Menzer O (2016). Integrated analysis of productivity and biodiversity in a Southern Alberta prairie. *Remote Sensing*. 8:214, doi:10.3390/rs8030214
- \*Wang R, Gamon JA, Townsend P, Zygielbaum A, Montgomery R, \*Bitan, K, Tilman D., Cavender-Bares J, (2016) Seasonal variation in the NDVI-species richness relationship in a prairie grassland experiment (Cedar Creek). *Remote Sensing*. 8:128 doi:10.3390/rs8020128

- \*Emmerton CA, St. Louis VL, Humphreys ER, Barker JD, Gamon JA, Pastorello GZ (2016) The net ecosystem exchange of rapidly changing high Arctic landscapes and potential for upscaling. *Global Change Biology*. 22:1185-1200. doi: 10.1111/gcb.13064
- Flanagan LB, Sharp EJ, Gamon JA (2015) Application of the photosynthetic light-use efficiency model in a northern Great Plains grassland. *Remote Sensing of Environment*. 168:239-251. (Submitted November 20, 2014, Accepted July 15, 2015, Published Oct 2015) doi.org/10.1016/j.rse.2015.07.013
- Gamon JA (2015) Optical sampling of the flux tower footprint. *Biogeosciences* 12: 4509-4523. doi:10.5194/bg-12-4509-2015 (First published in *Biogeosciences Discussions*. doi:10.5194/bgd-12-4973-2015). (EuroSpec Special Issue)
- Gamon JA, \*Kovalchuk O, \*Wong CYS, Harris A, Garrity SR (2015). Monitoring seasonal and diurnal changes in photosynthetic pigments with automated PRI and NDVI sensors. *Biogeosciences* 12: 4149-4159. doi:10.5194/bg-12-4149-2015 (First published in *Biogeosciences Discussion*. 12, 2947–2978, doi:10.5194/bgd-12-2947-2015)
- \*Wong CYS, Gamon JA (2015) The Photochemical Reflectance Index (PRI) provides an optical indicator of spring photosynthetic activation in conifers –*New Phytologist*. 206: 196–208, doi: 10.1111/nph.13251
- Gitelson A, Gamon JA (2015) The need for a common basis for defining light-use efficiency: implications for productivity estimation. *Remote Sensing of Environment* 156:196-201
- \*Wong, CYS, Gamon JA (2015) Three causes of variation in the Photochemical Reflectance Index (PRI) in evergreen conifers. *New Phytologist* 206: 187–195, doi: 10.1111/nph.13159
- Harris A., Gamon J.A., \*Pastorello G.Z., \*Wong C.Y.S. (2014) Retrieval of the photochemical reflectance index for assessing xanthophyll cycle activity: a comparison of near-surface optical sensors, *Biogeosciences*. 11, 6277-6292, doi:10.5194/bg-11-6277-2014
- \*Williamson SN, Hik DS, Gamon JA, Kavanaugh JL, Flowers GE (2014) Estimating temperature fields from MODIS land surface temperature and air temperature observations in a sub-arctic alpine environment. *Remote Sensing* 6: 946-963. Vol: 6. Issue: 2. DOI: 10.3390/rs6020946
- Gilmanov T, Baker J, Bernacchi C, Billesbach D, Burba G, \*Castro S, Chen J, Eugster W, Fischer M, Gamon J, Gebremedhin M, Glenn A, Griffis T, Hatfield J, Heuer M, Howard D, Leclerc M, Loescher H, Marloie O, Meyers T, Olioso A, Phillips R, Prueger J, Skinner H, Suyker A, Tenuta M, Wylie B. (2014) Productivity and CO<sub>2</sub> Exchange of the Leguminous Crops: Estimates from Flux Tower Measurements. *Agronomy Journal*, 106(2):545-559
- Huemmerich KF, Gamon JA, Tweedie C, Campbell PK, Landis D, Middleton E (2013) Arctic Tundra Vegetation Functional Types Based on Photosynthetic Physiology and Optical

Properties. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* (J-STARS) special issue on EO-1. 6(2):265-275

Gamon JA, Bond B (2013) Effects of irradiance and photosynthetic downregulation on the Photochemical Reflectance Index in Douglas-fir and ponderosa pine. *Remote Sensing of Environment* 135:141-149

Townsend PA, Serbin SP, Kruger EL, Gamon JA (2013) Disentangling the contribution of biological and physical properties of leaves and canopies in imaging spectroscopy data. *Proceedings of the National Academy of Sciences*. 110 (12) E1074

Gamon JA, Huemmrich KF, Stone RS, Tweedie C (2013) Spatial and Temporal Variation in Primary Productivity (NDVI) of Coastal Alaskan Tundra: Decreased Vegetation Growth following Earlier Snowmelt. *Remote Sensing of Environment*, 129:144-153.  
<http://dx.doi.org/10.1016/j.rse.2012.10.030>

\*Williamson SN, Hik DS, Gamon JA, Kavanaugh JL, Koh S (2013) Evaluating cloud contamination in clear-sky MODIS Terra daytime Land Surface Temperatures using ground-based meteorology station observations. *Journal of Climate* 26:1551-1560.

\*Rasaiah B, Bellman C, Chisholm L, Gamon J, Hueni A, Huete A, Jones S, Malthus T, Ong C, Phinn S, Roelfsema C, Suarez L, Townsend P, Trevithick R, Wyatt M (2013) Approaches to establishing a metadata standard for field spectroscopy datasets. *IGARSS Proceedings*, Melbourne, 2013

Gamon JA, Berry JA (2012) Facultative and constitutive pigment effects on the Photochemical Reflectance Index (PRI) in sun and shade conifer needles. *Israel Journal of Plant Sciences*, 60: 85-95. DOI: 10.1560/IJPS.60.1-2.85 (special issue in honor of Anatoly Gitelson)

Alvarez-Añorve M, Quesada M, Sanchez-Azofeifa A, Avila-Cabadilla LD, Gamon JA (2012) Functional regeneration and spectral reflectance of trees during succession in a highly diverse tropical dry forest ecosystem. *American Journal of Botany*, 99(5): 816-826.

Gamon JA, Kershaw GP, Williamson S, Hik D (2012) Microtopographic patterns in an arctic baydjarakh field: do fine-grain patterns enforce landscape stability? *Environ. Res. Lett.* 7 (2012) 015502. Available online at: <http://stacks.iop.org/1748-9326/7/015502>

Sanchez-Azofeifa A, Oki Y, Fernandes GW, \*Ball RA, Gamon J (2011) Relationships between endophyte diversity and leaf optical properties. *Trees – Structure and Function*. DOI 10.1007/s00468-011-0591-5

Garbulsky MF, Peñuelas J, Gamon JA, Inoue Y, Filella I. (2011) The Photochemical Reflectance Index (PRI) and the remote sensing of leaf, canopy and ecosystem radiation use efficiencies; a review and meta-analysis. *Remote Sensing of Environment*. 115(2): 281-297. doi:10.1016/j.rse.2010.08.023

- Gamon JA, Coburn C, Flanagan L, Huemmrich KF, Kiddle C, Sanchez-Azofeifa GA, Thayer D, Vescovo L, Gianelle D, Sims D, Rahman AF, Zonta Pastorella G (2010) SpecNet revisited: bridging flux and remote sensing communities. *Canadian Journal of Remote Sensing*. 36(Suppl. 2): S376–S390.
- \*Goswami S, Gamon JA, Tweedie CE (2010) Surface hydrology of an arctic ecosystem: multi-scale analysis of a flooding and draining experiment using spectral reflectance. *J. Geophys. Res.*, 116, G00I07, doi:10.1029/2010JG001346
- Huemmrich KF, \*Kinoshita G, Gamon JA, \*Houston S, \*Kwon H, Oechel WC (2010) Tundra Carbon Balance Under Varying Temperature and Moisture Regimes. *Journal of Geophysical Research*. 115, G00I02, doi:10.1029/2009JG001237, 2010
- Ustin SL, Gamon JA (2010) Remote sensing of plant functional types. *New Phytologist*. 186: 795–816
- Huemmrich KF, Gamon JA, Tweedie CE, Oberbauer SF, \*Kinoshita G, \*Houston S, \*Kuchy A, Hollister RD, Kwon H, Mano M, Harazono Y, Webber PJ, Oechel WC (2010) Remote sensing of tundra gross ecosystem productivity and light use efficiency under varying temperature and moisture conditions. *Remote Sensing of Environment*. 114(3):481-489.
- Quesada M, Sanchez-Azofeifa G, Alvarez-Anorve M, Stoner KE, Avila-Cabadilla L, Calvo-Alvarado J, Castillo A, Espiritu-Santo MM, Fagundes M, Fernandes GW, Gamon J, Lopezaraiza-Mikel M, Lawrence D, Morellato P, Powers J, Neves F, Rosas-Guerrero V, Sayago R, Sanchez-Montoya G (2009) Succession and management of tropical dry forests in the Americas: Review and new perspectives. *Forest Ecology and Management*. 258:1014-1024.
- Sanchez –Azofeifa G, \*Castro K, Wright SJ, Gamon J, Rivard B, \*Kalacska M, Schnitzer S (2009) Differences in leaf traits, leaf internal structure, and spectral reflectance between two communities of lianas and trees: Implications for remote sensing in tropical environments. *Remote Sensing of Environment*. 113:2076-2088.
- Ustin SL, Gitelson AA, Jacquemoud S, Schaepman ME, Asner GP, Gamon JA, Zarco-Tejada P (2009) Retrieval of Foliar Information about Plant Pigment Systems from High Resolution Spectroscopy, *Remote Sensing of Environment*. 113:S67-77.
- Gamon JA (2008) Tropical remote sensing – opportunities and challenges. pp. 297-304. In: Kalacska M, Sanchez-Azofeifa GA (Eds), *Hyperspectral remote sensing of tropical and subtropical forests*. CRC Press, Taylor and Francis Group. ISBN-10: 1420053418, ISBN-13: 978-1420053418.
- Gamon JA, Qiu H-L, Sanchez-Azofeifa A (2007) Ecological Applications of Remote Sensing at Multiple Scales. pp. 655-684 in: Pugnaire FI, Valladares F (Eds) *Plant Functional Ecology, Second Edition*. CRC Press, Boca Raton, FL.

- Sitch S, McGuire AD, Kimball J, Gedney N, Gamon J, Engstrom, R, Wolf A, Zhuang Q (2007) Assessing the circumpolar carbon balance of arctic tundra with remote sensing and process-based modeling approaches. *Ecological Applications* 17:213-234.
- Gamon JA, Rahman AF, Dungan JL, Schildhauer M, Huemmrich KF (2006a) Spectral Network (SpecNet): what is it and why do we need it? *Remote Sensing of Environment*. 103: 227-235.
- Gamon JA, Cheng Y, \*Claudio H, \*MacKinney L, Sims D (2006b) A mobile tram system for systematic sampling ecosystem optical properties. *Remote Sensing of Environment*. 103:246-254
- \*Claudio HC, Gamon JA, Cheng Y, \*Fuentes D, Rahman AF, Qiu H-L, Sims DA, Luo H, Oechel WC (2006) Monitoring drought effects on vegetation water content and fluxes in chaparral with the 970nm water band index. *Remote Sensing of Environment*. 103:304-311.
- \*Fuentes D, Gamon JA, Cheng Y, Qiu H-L, Mao Z, Sims DA, Rahman AF, Oechel WC, \*Luo H (2006) Mapping carbon and water flux in a chaparral ecosystem using vegetation indices derived from AVIRIS. *Remote Sensing of Environment*. 103:312-323.
- Cheng Y, Gamon JA, \*Fuentes DA, Mao Z, Sims DA, Qiu H-L, \*Claudio HC, Yang W, Huete A (2006) A multi-scale analysis of dynamic optical signals in a Southern California chaparral ecosystem: a comparison of field, AVIRIS and MODIS data. *Remote Sensing of Environment*. 103:369-378
- Sims DA, \*Luo H, Hastings S, Oechel WC, Rahman AF, and Gamon JA (2006) Parallel adjustments in vegetation greenness and ecosystem CO<sub>2</sub> exchange in response to drought in a Southern California chaparral ecosystem. *Remote Sensing of Environment*. 103:289-303.
- Sanchez-Azofeifa GA, Quesada M, Rodriguez JP, Nassar JM, Stoner KE, Castillo A, Garvin T, Zent EL, Calvo J, Kalacska M, Fajardo L, Gamon J, Cuevas-Reyes (2005) Research Priorities for Neotropical Dry Forests. *BioTropica*. 37(4):477-485
- Gamon JA, Kitajima K, Mulkey SS, Serrano L, Wright SJ (2005) Diverse optical and photosynthetic properties in a neotropical forest during the dry season: implications for remote estimation of photosynthesis. *BioTropica*. 37(4):547-560.
- \*Moyes AB, Witter MS, Gamon JA (2005) Restoration of native perennials in a California annual grassland after prescribed spring burning and solarization. *Restoration Ecology* 13(4):658-665.
- Turner DP, Ritts WD, Cohen WB, Maeirsperger TK, Gower ST, Kirschbaum AA, Running SW, Zhao M, Wofsy SC, Dunn AL, Law BE, Campbell JL, Oechel WC, Kwon HJ, Meyers TP, Small EE, Kurc SA, Gamon JA (2005) Site-level evaluation of satellite-based global GPP and NPP monitoring. *Global Change Biology*. 11:666-684.

- Rahman AF, Gamon JA (2004) Detecting biophysical properties of a semi-arid grassland and distinguishing burned from unburned areas with hyperspectral reflectance. *Journal of Arid Environments* 58(4): 597-610
- Ustin SL, Roberts DA, Gamon JA, Asner GP, Green RO (2004) Using imaging spectroscopy to study ecosystem processes and properties. *BioScience* 54(6):523-533
- Stow DA, Hope A, McGuire D, Verbyla D, Gamon J, Huemmrich F, \*Houston S, Racine C, Sturm M, Tape K, Hinzman L, Yoshikawa K, Tweedie C, Noyle B, Silapaswan C, Douglas D, Griffith B, Jia G, Epstein H, Walker D, Daeschner S, Petersen A, Zhou L, Myneni R (2004) Remote sensing of vegetation and land-cover change in arctic tundra ecosystems. *Remote Sensing of Environment* 89:281-308.
- Rahman AF, \*Cordova VD, Gamon JA, Schmid HP, Sims DA (2004), Potential of MODIS ocean bands for estimating CO<sub>2</sub> flux from terrestrial vegetation: A novel approach, *Geophysical Research Letters*, 31, L10503, doi:10.1029/2004GL019778
- Gamon JA, Huemmrich KF, Peddle DR, Chen J, Fuentes D, Hall FG, Kimball JS, Goetz S, Gu J, McDonald KC, Miller JR, Moghaddam M, Rahman AF, Roujean J-L, Smith EA, Walthall CL, Zarco-Tejada P, Hu B, Fernandes R, Cihlar J (2004) Remote sensing in BOREAS: Lessons learned. *Remote Sensing of Environment*. 89: 139-162.
- \*Boelman NT, Stieglitz M, Rueth H, Sommerkorn M, Griffin KL, Shaver GR, Gamon JA (2003) Response of NDVI, biomass, and ecosystem gas exchange to long-term warming and fertilization in wet sedge tundra. *Oecologia* 135:414-421.
- Sims DA, Gamon JA (2003) Estimation of vegetation water content and photosynthetic tissue area from spectral reflectance: a comparison of indices based on liquid water and chlorophyll absorption. *Remote Sensing of Environment*. 84:526-537.
- Rahman AF, Gamon JA, Sims DA, Schmidts M (2003) Optimal pixel size for hyperspectral remote sensing of ecosystem function: A case study of Southern California Grassland and Chaparral. *Remote Sensing of Environment*. 84:192-207.
- \*Stylinski C.D., Gamon J.A. & Oechel W.C. (2002) Seasonal patterns of reflectance indices, carotenoid pigments and photosynthesis of evergreen chaparral species. *Oecologia* 131:366-374.
- Sims DA, Gamon JA (2002.) Relationships between leaf pigment content and spectral reflectance across a wide range of species, leaf structures and developmental stages. *Remote Sensing of Environment*. 81:337-354.
- Rahman AF, Gamon JA, \*Fuentes DA, Roberts DA, \*Prentiss D (2001) Modeling spatially distributed ecosystem flux of boreal forests using hyperspectral indices from AVIRIS imagery. *Journal of Geophysical Research*. 106(D24):33,579-33,591.

- \*Fuentes DA, Gamon JA, Qiu H-L, Sims DA, Roberts DA (2001) Mapping Canadian boreal forest vegetation using pigment and water absorption features derived from the AVIRIS sensor. *Journal of Geophysical Research*. 106(D24):33,565-33,577.
- \*Yoshida LC, Gamon JA, Andersen CP (2001) Differences in above- and below-ground responses to ozone between two populations of a perennial grass. *Plant and Soil*. 233:203-211.
- Gamon JA, Field CB, Fredeen AL, Thayer S (2001) Assessing photosynthetic downregulation in sunflower stands with an optically-based model. *Photosynthesis Research* 67:113-125.
- \*Serrano L, Ustin SL, Roberts DA, Gamon JA, Peñuelas J (2000) Deriving water content of chaparral vegetation from AVIRIS data. *Remote Sensing of Environment*. 74:570-581.
- \*Serrano L, Gamon JA, Peñuelas J (2000) Estimation of canopy photosynthetic and non-photosynthetic components from spectral transmittance. *Ecology* 81(11):3149-3162.
- \*Stylinski CD, Oechel WC, Gamon JA, Tissue DT, Miglietta F, Raschi A (2000) Long-term CO<sub>2</sub> effects on carboxylation and light utilization. *Plant, Cell and Environment*. 23: 1353-1362
- Gamon JA, \*Surfus JS (1999) Assessing leaf pigment content and activity with a reflectometer. *New Phytologist* 143:105-117.
- Gamon JA, Qiu H-L (1999) Ecological applications of remote sensing at multiple scales. pp. 805-846 In: Pugnaire FI, Valladares F (Eds) *Handbook of Functional Plant Ecology*. Marcel Dekker, Inc. New York.
- Qiu H-L, Lam NS-N, Quattrochi DA, Gamon JA (1999) Fractal characterization of hyperspectral imagery. *Photogrammetric Engineering and Remote Sensing*. 65(1):63-71.
- \*Joel G, Gamon JA, Field CB (1997) Production Efficiency in Sunflower: The Role of Water and Nitrogen Stress. *Remote Sensing of Environment*.
- Gamon JA, \*Serrano L, \*Surfus JS (1997) The photochemical reflectance index: an optical indicator of photosynthetic radiation-use efficiency across species, functional types, and nutrient levels. *Oecologia* 112:492-501.
- Peñuelas J, \*Filella I, Gamon JA, Field C (1997) Assessing photosynthetic radiation-use efficiency of emergent aquatic vegetation from spectral reflectance. *Aquatic Botany* 58:307-315.
- \*Serrano L, Gamon JA, Berry J (1997) Estimation of leaf area with an integrating sphere. *Tree Physiology* 17:571-576.
- Peñuelas J, \*Filella I, Gamon JA (1995) Assessment of photosynthetic radiation-use efficiency with spectral reflectance, *New Phytologist* 131:291-296.



- Valentini R, Gamon JA, Field CB (1995) Ecosystem gas exchange in a California serpentine grassland: seasonal patterns and implications for scaling. *Ecology*. 76(6):1940-1952
- Gamon JA, Field CB, Goulden M, Griffin K, Hartley A, \*Joel G, Peñuelas J., Valentini, R (1995) Relationships between NDVI, canopy structure, and photosynthetic activity in three Californian vegetation types. *Ecological Applications*. 5(1):28-41.
- Peñuelas J, Gamon JA, Fredeen AL, Merino J, Field CB (1994) Reflectance indices associated with physiological changes in nitrogen- and water-limited sunflower leaves. *Remote Sensing of Environment*. 48:135-146.
- Field CB, Gamon JA, Peñuelas J (1994) Remote sensing of terrestrial photosynthesis. In: Schulze ED, Caldwell MM (Eds) *Ecophysiology of Photosynthesis, Ecological Studies Vol 100*. pp. 511-527.
- Peñuelas J, Gamon JA, Griffin K, Field CB. (1993) Assessing community type, plant biomass, pigment composition, and photosynthetic efficiency of aquatic vegetation from spectral reflectance. *Remote Sensing of Environment* 46:1-25.
- Gamon JA, \*Filella I, Peñuelas J (1993) The dynamic 531-nanometer  $\Delta$  reflectance signal: a survey of twenty angiosperm species. Yamamoto HY , Smith CM (Eds). *Photosynthetic Responses to the Environment*. American Society of Plant Physiologists, Rockville. pp. 172-177.
- Gamon JA, Field CB, Roberts DA, Ustin SL, Valentini R (1993) Functional patterns in an annual grassland during an AVIRIS overflight. *Remote Sensing of Environment*. 44:1-15
- Caldwell MM, Matson PA, Wessman CA, Gamon JA (1993) Prospects for scaling. In: Ehleringer JR, Field CB (eds) *Scaling Physiological Processes: Leaf to Globe*. Academic Press, San Diego. pp. 223-230.
- Gamon JA, Peñuelas J, Field CB (1992) A Narrow-Waveband Spectral Index that Tracks Diurnal Changes in Photosynthetic Efficiency. *Remote Sensing of Environment*. 41:35-44.
- Fredeen AL, Gamon JA, Field CB (1991) Responses of Photosynthesis and Carbohydrate Partitioning to Limitations in Nutrient and Water Availability in Field-grown Sunflower. *Plant, Cell and Environment* 14:963-970
- Gamon JA, Field CB, Bilger W, Björkman O, Fredeen A, Peñuelas J (1990) Remote Sensing of the Xanthophyll Cycle and Chlorophyll Fluorescence in Sunflower Leaves and Canopies. *Oecologia*. 85:1-7.
- Pearcy RW, \*Rodén JS, \*Gamon JA (1990) Sunfleck Dynamics in Relation to Canopy Structure in a Soybean (*Glycine max* (L.) Merr.) Canopy. *Agric. Forest Meteorol*. 52:359-372.

- \*Gamon JA, Pearcy RW (1990) Photoinhibition in *Vitis californica*: Interactive Effects of PFD, Temperature and Water Status. *Plant, Cell and Environment* 13:267-275.
- \*Gamon JA, Pearcy RW (1990) Photoinhibition in *Vitis californica*: the Role of Temperature During High-light Treatment. *Plant Physiology* 92:487-494.
- \*Gamon JA, Pearcy RW. (1989) Leaf Movement, Stress Avoidance and Photosynthesis in *Vitis californica*. *Oecologia* 79:475-481.

**Other Publications: (abstracts, non-peer-reviewed, etc.)**

\*Goswami S, Gamon J, \*Vargas S, Tweedie C (2017) Five years of land surface phenology in a large-scale flooding and draining manipulation in a coastal Arctic ecosystem. bioRxiv. 146662. doi: <https://doi.org/10.1101/146662>

\*Goswami S, Gamon J, \*Vargas S, Tweedie C (2015) Relationships of NDVI, Biomass, and Leaf Area Index (LAI) for six key plant species in Barrow, Alaska. *PeerJ PrePrints*. <https://dx.doi.org/10.7287/peerj.preprints.913v1>

Gamon, J. A. 2014. A new look at rangeland health and productivity. *Beef and Range Report*, pp. 82-83. University of Alberta, Edmonton, AB. (Accepted June 10, 2014).

Koteen L, Baldocchi D, Gamon J (2011) Integrating and scaling carbon, water, and energy fluxes with optical measurements. *EOS Transactions*. 92(43):377 DOI: 10.1029/2011EO430007 Published online 21 Oct 2011.

Gamon J, Pastorello GZ (2012) Linking Optical to Flux Data: Best Practices for Optical Sampling in the Context of Flux Measurements. Venue: *Canadian Society of Remote Sensing, Annual Meeting Proceedings*. Accepted: 2012-06-01. Published: 2012-08-01.

Malhotra B, Gamon JA, Bressan S (2012) SALSA: A Software System for Data Management in Field Spectrometry. Proceedings of the 24th International Conference on Scientific and Statistical Database Management (SSDBM), Chania, Crete, Greece, 25-27 June 2012.

\*Gallegos I, Gates AQ, Goswami S, Tweedie C, Gamon J (2011). “Towards Near-Real Time Data Property Specification and Verification for Arctic Hyperspectral Sensor Data.” In Proceedings of the North American Fuzzy Information Processing Society Conference (NAFIPS) 2011 (in press)

Gamon, J.A. (2011) Linking flux measurements and remote sensing with field optical sampling. *AsiaFlux Newsletter*, Issue No. 33: 8-15. Available online at: <http://asiaflux.net/newsletter.html>

Gamon, J.A. (2010) Integrating Remote Sensing and Flux Measurements. Vol 3(1):7-10. *FluxLetter* (FLUXNET newsletter, available online at: <http://bwc.berkeley.edu/FluxLetter/>)

- Ustin SL, Asner GP, Gamon JA, Huemmrich KF, Jacquemoud S, Schaepman M, Zarco-Tejada P (2006) Retrieval of Quantitative and Qualitative Information about Plant Pigment Systems from High Resolution Spectroscopy. *IEEE IGARSS Proceedings* July 31-August 4, 2006, Denver. Colorado.
- Gamon JA, Fuentes D, Sims D, Houston S, Moyes A, Qiu H-L, Oechel W (2002) Ecosystem carbon flux in a disturbed, fragmented Southern California landscape. *Summaries of the Tenth JPL Airborne Earth Science Workshop*. March 5-8, 2002. Jet Propulsion Laboratory, Pasadena, CA.
- Rahman AF, Gamon JA, Sims DA, Schmidts M (2001) An assessment of optimum AVIRIS pixel size for ecosystem function studies. *Summaries of the Tenth JPL Airborne Earth Science Workshop*. February 27-March 2, 2000. Jet Propulsion Laboratory, Pasadena, CA.
- Rahman AF, Gamon JA, Fuentes DA, Roberts DA, Prentiss D, Qiu H-L (2000) Modeling CO<sub>2</sub> flux of boreal forests using narrow-band indices from AVIRIS imagery. *Summaries of the Ninth JPL Airborne Earth Science Workshop*. February 23-25, 2000. Jet Propulsion Laboratory, Pasadena, CA.
- Fuentes DA, Gamon JA, Qiu H-L, Sims D, Roberts DA (2000) Mapping vegetation cover types in the Canadian boreal forest using pigment and water absorption features derived from AVIRIS. *Summaries of the Ninth JPL Airborne Earth Science Workshop*. February 23-25, 2000. Jet Propulsion Laboratory, Pasadena, CA.
- Gamon JA, Qiu H-L, Roberts DA, Ustin SL, Fuentes DA, Rahman A, Sims D, Styliniski C (1999) Water expressions from hyperspectral reflectance: implications for ecosystem flux modeling. In: Green RO (Ed) *Summaries of the Eighth JPL Airborne Earth Science Workshop*. February 9-11, 1999. Jet Propulsion Laboratory, Pasadena, CA.
- Qiu H-L, Gamon JA, Roberts DA, Luna M (1998) Monitoring post fire succession in the Santa Monica Mountains using hyperspectral imagery. *Proceedings of SPIE* 3502:201-207.
- Gamon JA, Lee L-F, Qiu H-L, Davis S, Roberts DA, Ustin SL (1998) A multi-scale sampling strategy for detecting physiologically significant signals in AVIRIS imagery. *Seventh JPL Earth Science Workshop*, January 12-16, 1998. Jet Propulsion Laboratory, Pasadena, CA.
- Qiu H-L, Gamon JA, Luna M (1998) Fractal dimensions of AVIRIS imagery. *Seventh JPL Earth Science Workshop*, January 12-16, 1998. Jet Propulsion Laboratory, Pasadena, CA.
- Gamon JA, Serrano L, Roberts DA, Ustin SL (1996) A ground truthing method for AVIRIS overflights using canopy absorption spectra. In: Green RO (Ed) *Proceedings of the Sixth Annual JPL Airborne Earth Science Workshop*, Pasadena, 4-8 March 1996. JPL Publication
- Gamon JA, Green RO, Roberts DA, Serrano L (1995) Deriving photosynthetic function from calibrated imaging spectrometry. In: Guyot G (Ed) *Proceedings of the International*

*Colloquium, Photosynthesis and Remote Sensing*, 28-30 August, Montpellier, France. pp. 55-60.

Peñuelas J, Filella I, Gamon JA (1995) Assessment of photosynthetic radiation-use efficiency with spectral reflectance at the leaf and canopy levels. In: Guyot G (Ed) *Proceedings of the International Colloquium, Photosynthesis and Remote Sensing*, 28-30 August, Montpellier, France. pp. 129-134.

Gamon JA, Roberts DA, Green RO (1995) Evaluation of the photochemical reflectance index in AVIRIS imagery. In: Green RO (Ed) *Proceedings of the Fifth Annual JPL Airborne Earth Science Workshop*, Pasadena, 23-26 January 1995. JPL Publication 95-1:55-58.

Gamon JA, Field CB, Ustin SL (1992) Evaluation of Spatial Productivity Patterns in an Annual Grassland during an AVIRIS Overflight. In: Green RO (Ed) *Proceedings of the Third Annual JPL Airborne Geoscience Workshop*, Pasadena, 1-5 June 1992. pp. 17-19

### **Outreach Videos:**

March 11, 2014, WSU Campbell Lecture: <https://decagon.wistia.com/medias/5lozh3cdaz>

May 21, 2014 “The Photochemical Reflectance Index (PRI): An Optical Metric of Plant Stress”. PRI Virtual Seminar: <http://decagon.wistia.com/medias/umsx2pl0pq> featured in online blog by Steve Garrity and Julia Mumford: <http://www.environmentalbiophysics.org/2014/05/>

### **Published Datasets – listed by archive:**

#### LPDAAC (Imaging spectrometry):

AEHYPCCMN300MM: Airborne Hyperspectral Reflectance LTER Cedar Creek Daily 300 mm V00. DOI: 10.5067/Community/Airborne/AEHYPCCMN300MM.001.

HWHYPCCMN1MM: Headwall Hyperspectral Reflectance LTER Cedar Creek Minnesota Multi-Year 1 mm V001 doi:10.5067/Community/Headwall/HWHYPCCMN1MM.001.

#### EcoSIS (Spectral data):

Whole Plot Canopy Spectra Big Biodiversity Experiment Cedar Creek LTER 2014. doi:10.21232/C2T66F.

Phenology Canopy Spectra Big Biodiversity Experiment Cedar Creek LTER 2014. doi:10.21232/C2Z070.

#### Ameriflux (Ecosystem carbon dioxide and water vapor flux data):

Site CA-M3 (Mattheis Ranch E3) - <http://ameriflux.lbl.gov/>

Site CA-M5 (Mattheis Ranch E5) - <http://ameriflux.lbl.gov/>