

Luis Alonso

List of Publications by Year in descending order

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115
papers

6,533
citations

57758

44
h-index

64796

79
g-index

115
all docs

115
docs citations

115
times ranked

6068
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Remote sensing of solar-induced chlorophyll fluorescence: Review of methods and applications. Remote Sensing of Environment, 2009, 113, 2037-2051. | 11.0 | 640 |
| 2 | Evaluation of Sentinel-2 Red-Edge Bands for Empirical Estimation of Green LAI and Chlorophyll Content. Sensors, 2011, 11, 7063-7081. | 3.8 | 410 |
| 3 | Machine learning regression algorithms for biophysical parameter retrieval: Opportunities for Sentinel-2 and -3. Remote Sensing of Environment, 2012, 118, 127-139. | 11.0 | 400 |
| 4 | Robust support vector method for hyperspectral data classification and knowledge discovery. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1530-1542. | 6.3 | 236 |
| 5 | Multiooutput Support Vector Regression for Remote Sensing Biophysical Parameter Estimation. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 804-808. | 3.1 | 235 |
| 6 | A red-edge spectral index for remote sensing estimation of green LAI over agroecosystems. European Journal of Agronomy, 2013, 46, 42-52. | 4.1 | 214 |
| 7 | Sun-induced fluorescence "a new probe of photosynthesis: First maps from the imaging spectrometer" HyPlant. Global Change Biology, 2015, 21, 4673-4684. | 9.5 | 213 |
| 8 | Retrieval of Vegetation Biophysical Parameters Using Gaussian Process Techniques. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1832-1843. | 6.3 | 201 |
| 9 | Red and far red Sun-induced chlorophyll fluorescence as a measure of plant photosynthesis. Geophysical Research Letters, 2015, 42, 1632-1639. | 4.0 | 171 |
| 10 | Highly reliable energy-saving mac for wireless body sensor networks in healthcare systems. IEEE Journal on Selected Areas in Communications, 2009, 27, 553-565. | 14.0 | 159 |
| 11 | Improved Fraunhofer Line Discrimination Method for Vegetation Fluorescence Quantification. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 620-624. | 3.1 | 158 |
| 12 | Multitemporal fusion of Landsat/TM and ENVISAT/MERIS for crop monitoring. International Journal of Applied Earth Observation and Geoinformation, 2013, 23, 132-141. | 2.8 | 125 |
| 13 | Retrieval of sun-induced fluorescence using advanced spectral fitting methods. Remote Sensing of Environment, 2015, 169, 344-357. | 11.0 | 119 |
| 14 | Estimation of solar-induced vegetation fluorescence from space measurements. Geophysical Research Letters, 2007, 34, . | 4.0 | 118 |
| 15 | CEFLES2: the remote sensing component to quantify photosynthetic efficiency from the leaf to the region by measuring sun-induced fluorescence in the oxygen absorption bands. Biogeosciences, 2009, 6, 1181-1198. | 3.3 | 115 |
| 16 | Angular Dependency of Hyperspectral Measurements over Wheat Characterized by a Novel UAV Based Goniometer. Remote Sensing, 2015, 7, 725-746. | 4.0 | 109 |
| 17 | A RADARSAT-2 Quad-Polarized Time Series for Monitoring Crop and Soil Conditions in Barrax, Spain. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1057-1070. | 6.3 | 102 |
| 18 | Goodbye, ALOHA!. IEEE Access, 2016, 4, 2029-2044. | 4.2 | 101 |

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|----|---|------|-----------|
| 19 | Bidirectional sun-induced chlorophyll fluorescence emission is influenced by leaf structure and light scattering properties " A bottom-up approach. <i>Remote Sensing of Environment</i> , 2015, 158, 169-179. | 11.0 | 99 |
| 20 | Remote sensing of sunlight-induced chlorophyll fluorescence and reflectance of Scots pine in the boreal forest during spring recovery. <i>Remote Sensing of Environment</i> , 2005, 96, 37-48. | 11.0 | 98 |
| 21 | A Survey on M2M Systems for mHealth: A Wireless Communications Perspective. <i>Sensors</i> , 2014, 14, 18009-18052. | 3.8 | 98 |
| 22 | Optimizing LUT-Based RTM Inversion for Semiautomatic Mapping of Crop Biophysical Parameters from Sentinel-2 and -3 Data: Role of Cost Functions. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2014, 52, 257-269. | 6.3 | 97 |
| 23 | Developments for vegetation fluorescence retrieval from spaceborne high-resolution spectrometry in the O ₂ and O ₂ absorption bands. <i>Journal of Geophysical Research</i> , 2010, 115, . | 3.3 | 92 |
| 24 | Gaussian Process Retrieval of Chlorophyll Content From Imaging Spectroscopy Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2013, 6, 867-874. | 4.9 | 92 |
| 25 | How Universal Is the Relationship between Remotely Sensed Vegetation Indices and Crop Leaf Area Index? A Global Assessment. <i>Remote Sensing</i> , 2016, 8, 597. | 4.0 | 91 |
| 26 | A method for the surface reflectance retrieval from PROBA/CHRIS data over land: application to ESA SPARC campaigns. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2005, 43, 2908-2917. | 6.3 | 90 |
| 27 | Upward and downward solar-induced chlorophyll fluorescence yield indices of four tree species as indicators of traffic pollution in Valencia. <i>Environmental Pollution</i> , 2013, 173, 29-37. | 7.5 | 89 |
| 28 | Estimating chlorophyll content of crops from hyperspectral data using a normalized area over reflectance curve (NAOC). <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2010, 12, 165-174. | 2.8 | 88 |
| 29 | Plant chlorophyll fluorescence: active and passive measurements at canopy and leaf scales with different nitrogen treatments. <i>Journal of Experimental Botany</i> , 2016, 67, 275-286. | 4.8 | 82 |
| 30 | Correction of systematic spatial noise in push-broom hyperspectral sensors: application to CHRIS/PROBA images. <i>Applied Optics</i> , 2008, 47, F46. | 2.1 | 78 |
| 31 | Gaussian processes retrieval of leaf parameters from a multi-species reflectance, absorbance and fluorescence dataset. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2014, 134, 37-48. | 3.8 | 70 |
| 32 | Information Exchange in Randomly Deployed Dense WSNs With Wireless Energy Harvesting Capabilities. <i>IEEE Transactions on Wireless Communications</i> , 2016, 15, 3008-3018. | 9.2 | 70 |
| 33 | Wireless Energy Harvesting in Two-Way Network Coded Cooperative Communications: A Stochastic Approach for Large Scale Networks. <i>IEEE Communications Letters</i> , 2014, 18, 1011-1014. | 4.1 | 69 |
| 34 | Diurnal Cycle Relationships between Passive Fluorescence, PRI and NPQ of Vegetation in a Controlled Stress Experiment. <i>Remote Sensing</i> , 2017, 9, 770. | 4.0 | 67 |
| 35 | Sun-Induced Chlorophyll Fluorescence II: Review of Passive Measurement Setups, Protocols, and Their Application at the Leaf to Canopy Level. <i>Remote Sensing</i> , 2019, 11, 927. | 4.0 | 61 |
| 36 | Evaluation of remote sensing of vegetation fluorescence by the analysis of diurnal cycles. <i>International Journal of Remote Sensing</i> , 2008, 29, 5423-5436. | 2.9 | 59 |

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|----|---|-----|-----------|
| 37 | Multiobjective Auction-Based Switching-Off Scheme in Heterogeneous Networks: To Bid or Not to Bid?. IEEE Transactions on Vehicular Technology, 2016, 65, 9168-9180. | 6.3 | 59 |
| 38 | Early Diagnosis of Vegetation Health From High-Resolution Hyperspectral and Thermal Imagery: Lessons Learned From Empirical Relationships and Radiative Transfer Modelling. Current Forestry Reports, 2019, 5, 169-183. | 7.4 | 58 |
| 39 | Sun-Induced Chlorophyll Fluorescence III: Benchmarking Retrieval Methods and Sensor Characteristics for Proximal Sensing. Remote Sensing, 2019, 11, 962. | 4.0 | 57 |
| 40 | Device-to-device communications and small cells: enabling spectrum reuse for dense networks. IEEE Wireless Communications, 2014, 21, 98-105. | 9.0 | 54 |
| 41 | The High-Performance Airborne Imaging Spectrometer HyPlantâ€”From Raw Images to Top-of-Canopy Reflectance and Fluorescence Products: Introduction of an Automatized Processing Chain. Remote Sensing, 2019, 11, 2760. | 4.0 | 53 |
| 42 | Scene-based spectral calibration assessment of high spectral resolution imaging spectrometers. Optics Express, 2009, 17, 11594. | 3.4 | 49 |
| 43 | A near-optimum cross-layered distributed queuing protocol for wireless LAN. IEEE Wireless Communications, 2008, 15, 48-55. | 9.0 | 44 |
| 44 | Compensation of Oxygen Transmittance Effects for Proximal Sensing Retrieval of Canopyâ€”Leaving Sunâ€”Induced Chlorophyll Fluorescence. Remote Sensing, 2018, 10, 1551. | 4.0 | 44 |
| 45 | FLEX End-to-End Mission Performance Simulator. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4215-4223. | 6.3 | 42 |
| 46 | Dynamic energy efficient distance-aware Base Station switch on/off scheme for LTE-advanced. , 2012, , . | | 37 |
| 47 | Regularized Multiresolution Spatial Unmixing for ENVISAT/MERIS and Landsat/TM Image Fusion. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 844-848. | 3.1 | 35 |
| 48 | A Cloud-Assisted Random Linear Network Coding Medium Access Control Protocol for Healthcare Applications. Sensors, 2014, 14, 4806-4830. | 3.8 | 35 |
| 49 | Variability and Uncertainty Challenges in Scaling Imaging Spectroscopy Retrievals and Validations from Leaves Up to Vegetation Canopies. Surveys in Geophysics, 2019, 40, 631-656. | 4.6 | 35 |
| 50 | Spatial Variation of Leaf Optical Properties in a Boreal Forest Is Influenced by Species and Light Environment. Frontiers in Plant Science, 2017, 8, 309. | 3.6 | 32 |
| 51 | Sun-Induced Chlorophyll Fluorescence I: Instrumental Considerations for Proximal Spectroradiometers. Remote Sensing, 2019, 11, 960. | 4.0 | 31 |
| 52 | First Results From the PROBA/CHRIS Hyperspectral/Multiangular Satellite System Over Land and Water Targets. IEEE Geoscience and Remote Sensing Letters, 2005, 2, 250-254. | 3.1 | 30 |
| 53 | Standardized Low-Power Wireless Communication Technologies for Distributed Sensing Applications. Sensors, 2014, 14, 2663-2682. | 3.8 | 27 |
| 54 | The 2013 FLEXâ€”US Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. Remote Sensing, 2017, 9, 612. | 4.0 | 27 |

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|----|---|------|-----------|
| 55 | On Hyperspectral Remote Sensing of Leaf Biophysical Constituents: Decoupling Vegetation Structure and Leaf Optics Using CHRIS-PROBA Data Over Crops in Barrax. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 1579-1583. | 3.1 | 26 |
| 56 | LPDQ: A self-scheduled TDMA MAC protocol for one-hop dynamic low-power wireless networks. Pervasive and Mobile Computing, 2015, 20, 84-99. | 3.3 | 26 |
| 57 | A field study on solar-induced chlorophyll fluorescence and pigment parameters along a vertical canopy gradient of four tree species in an urban environment. Science of the Total Environment, 2014, 466-467, 185-194. | 8.0 | 25 |
| 58 | In vivo photoprotection mechanisms observed from leaf spectral absorbance changes showing VIS-NIR slow-induced conformational pigment bed changes. Photosynthesis Research, 2019, 142, 283-305. | 2.9 | 22 |
| 59 | Gridding Artifacts on Medium-Resolution Satellite Image Time Series: MERIS Case Study. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2601-2611. | 6.3 | 21 |
| 60 | Design and Analysis of an Energy-Saving Distributed MAC Mechanism for Wireless Body Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, . | 2.4 | 20 |
| 61 | Model based compressed sensing reconstruction algorithms for ECG telemonitoring in WBANs. , 2014, 35, 105-116. | | 20 |
| 62 | Impact of Atmospheric Inversion Effects on Solar-Induced Chlorophyll Fluorescence: Exploitation of the Apparent Reflectance as a Quality Indicator. Remote Sensing, 2017, 9, 622. | 4.0 | 20 |
| 63 | Comparative analysis of atmospheric radiative transfer models using the Atmospheric Look-up table Generator (ALG) toolbox (version 2.0). Geoscientific Model Development, 2020, 13, 1945-1957. | 3.6 | 20 |
| 64 | Design of a Generic 3-D Scene Generator for Passive Optical Missions and Its Implementation for the ESA's FLEX/Sentinel-3 Tandem Mission. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1290-1307. | 6.3 | 16 |
| 65 | Sensitivity analysis of the fraunhofer line discrimination method for the measurement of chlorophyll fluorescence using a field spectroradiometer. , 2007, , . | | 15 |
| 66 | Energy-Efficiency Analysis of a Distributed Queuing Medium Access Control Protocol for Biomedical Wireless Sensor Networks in Saturation Conditions. Sensors, 2011, 11, 1277-1296. | 3.8 | 15 |
| 67 | Gradient-Based Automatic Lookup Table Generator for Radiative Transfer Models. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 1040-1048. | 6.3 | 15 |
| 68 | Towards a novel approach for Sentinel-3 synergistic OLCI/SLSTR cloud and cloud shadow detection based on stereo cloud-top height estimation. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 181, 238-253. | 11.1 | 15 |
| 69 | New Cloud Detection Algorithm for Multispectral and Hyperspectral Images: Application to ENVISAT/MERIS and PROBA/CHRIS Sensors. , 2006, , . | | 14 |
| 70 | Sharing the small cells for energy efficient networking: How much does it cost?. , 2014, , . | | 14 |
| 71 | Leaf-Level Spectral Fluorescence Measurements: Comparing Methodologies for Broadleaves and Needles. Remote Sensing, 2019, 11, 532. | 4.0 | 14 |
| 72 | Cross-layer enhancement for wlan systems with heterogeneous traffic based on DQCA. , 2008, 46, 60-66. | | 13 |

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|----|--|-----|-----------|
| 73 | Assessment of Approximations in Aerosol Optical Properties and Vertical Distribution into FLEX Atmospherically-Corrected Surface Reflectance and Retrieved Sun-Induced Fluorescence. Remote Sensing, 2017, 9, 675. | 4.0 | 12 |
| 74 | Difference and Potential of the Upward and Downward Sun-Induced Chlorophyll Fluorescence on Detecting Leaf Nitrogen Concentration in Wheat. Remote Sensing, 2018, 10, 1315. | 4.0 | 12 |
| 75 | Performance Analysis of a Cluster-Based MAC Protocol for Wireless Ad Hoc Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, . | 2.4 | 10 |
| 76 | Cloud detection for CHRIS/Proba hyperspectral images. , 2005, , . | | 9 |
| 77 | An Overview of the Regional Experiments for Land-atmosphere Exchanges 2012 (REFLEX 2012) Campaign. Acta Geophysica, 2015, 63, 1465-1484. | 2.0 | 9 |
| 78 | Study of the diurnal cycle of stressed vegetation for the improvement of fluorescence remote sensing. , 2006, 6359, 156. | | 7 |
| 79 | Connectivity Analysis in Wireless-Powered Sensor Networks with Battery-Less Devices. , 2016, , . | | 7 |
| 80 | Multitemporal image classification and change detection with kernels. , 2006, 6365, 136. | | 6 |
| 81 | CHRIS/Proba Toolbox for hyperspectral and multiangular data exploitations. , 2009, , . | | 6 |
| 82 | Impact of Structural, Photochemical and Instrumental Effects on Leaf and Canopy Reflectance Variability in the 500â€“600 nm Range. Remote Sensing, 2022, 14, 56. | 4.0 | 6 |
| 83 | Multi-resolution spatial unmixing for MERIS and Landsat image fusion. , 2010, , . | | 5 |
| 84 | Relating Hyperspectral Airborne Data to Ground Measurements in a Complex and Discontinuous Canopy. Acta Geophysica, 2015, 63, 1499-1515. | 2.0 | 5 |
| 85 | Modeling and Analysis of Reservation Frame Slotted-ALOHA in Wireless Machine-to-Machine Area Networks for Data Collection. Sensors, 2015, 15, 3911-3931. | 3.8 | 5 |
| 86 | Delay and Energy Consumption Analysis of Frame Slotted ALOHA variants for Massive Data Collection in Internet-of-Things Scenarios. Applied Sciences (Switzerland), 2020, 10, 327. | 2.5 | 4 |
| 87 | Remote sensing of chlorophyll fluorescence for estimation of stress in vegetation. recommendations for future missions. , 2007, , . | | 3 |
| 88 | Experimental Energy Consumption of Frame Slotted ALOHA and Distributed Queuing for Data Collection Scenarios. Sensors, 2014, 14, 13416-13436. | 3.8 | 3 |
| 89 | Reliable Machine-to-Machine Multicast Services with Multi-Radio Cooperative Retransmissions. Mobile Networks and Applications, 2015, 20, 734-744. | 3.3 | 3 |
| 90 | Combining distributed queuing with energy harvesting to enable perpetual distributed data collection applications. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3195. | 3.9 | 3 |

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|-----|---|------|-----------|
| 91 | Misión FLEX (Fluorescence Explorer): Observación de la fluorescencia por teledetección como nueva técnica de estudio del estado de la vegetación terrestre a escala global. Revista De Teledetección, 2014, . | 0.6 | 3 |
| 92 | Spatio-spectral deconvolution for high resolution spectral imaging with an application to the estimation of sun-induced fluorescence. Remote Sensing of Environment, 2021, 267, 112718. | 11.0 | 3 |
| 93 | Modelling spatial and spectral systematic noise patterns on CHRIS/PROBA hyperspectral data. , 2006, , . | | 2 |
| 94 | Multitemporal fusion of Landsat and MERIS images. , 2011, , . | | 2 |
| 95 | Propagation of spectral characterization errors of imaging spectrometers at level-1 and its correction within a level-2 recalibration scheme. , 2015, , . | | 2 |
| 96 | Oxygen transmittance correction for solar-induced chlorophyll fluorescence measured on proximal sensing: Application to the NASA-GSFC fusion tower. , 2017, , . | | 2 |
| 97 | Photoprotection Dynamics Observed at Leaf Level from Fast Temporal Reflectance Changes. , 2018, , . | | 2 |
| 98 | Robust automatic classification method for hyperspectral imagery. , 2004, 5238, 398. | | 1 |
| 99 | Potential retrieval of biophysical parameters from FLORIS, S3-OLCI and its synergy. , 2012, , . | | 1 |
| 100 | Optimizing LUT-based radiative transfer model inversion for retrieval of biophysical parameters using hyperspectral data. , 2012, , . | | 1 |
| 101 | End-to-end communication challenges in M2M systems for mHealth applications. , 2014, , . | | 1 |
| 102 | A sun-induced vegetation fluorescence retrieval method from top of atmosphere radiance for the FLEX/Sentinel-3 TanDEM mission. , 2015, , . | | 1 |
| 103 | Novel leaf-level measurements of chlorophyll fluorescence for photosynthetic efficiency. , 2015, , . | | 1 |
| 104 | <title>Methodology for quantitative analysis of scaling effects in multiresolution datasets acquired with airborne sensors flying at different altitude levels</title>. , 2001, 4170, 73. | | 0 |
| 105 | <title>Direct gradient analysis as a new tool for interpretation of hyperspectral remote sensing data: application to HYMAP/DAISEX-99 data</title>. , 2001, 4171, 229. | | 0 |
| 106 | Remote sensing of sun-induced chlorophyll fluorescence at different scales. , 2014, , . | | 0 |
| 107 | A fluorescence retrieval method for the flex sentinel-3 tandem mission. , 2014, , . | | 0 |
| 108 | Synthetic scene simulator for hyperspectral spaceborne passive optical sensors. Application to ESA's FLEX/sentinel-3 tandem mission. , 2014, , . | | 0 |

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| 109 | Efficient Contention Resolution in Highly Dense LTE Networks for Machine Type Communications. , 2014, , . | | 0 |
| 110 | Design of a satellite end-to-end mission performance simulator for imaging spectrometers and its application to the ESA's FLEX/Sentinel-3 tandem mission. Proceedings of SPIE, 2015, , . | 0.8 | 0 |
| 111 | Predicting year of plantation with hyperspectral and lidar data. , 2017, , . | | 0 |
| 112 | FLEX/S3 Tandem Mission Performance Assessment: Evolution of the End-to-End Simulator Flex-E. , 2018, , . | | 0 |
| 113 | Alg: a Toolbox for the Generation of Look-Up tables Based on Atmospheric Radiative Transfer Models. , 2018, , . | | 0 |
| 114 | Affine Illumination Compensation on Hyperspectral/Multiangular Remote Sensing Images. Lecture Notes in Computer Science, 2011, , 360-369. | 1.3 | 0 |
| 115 | Body Sensors and Healthcare Monitoring. Advances in Healthcare Information Systems and Administration Book Series, 2012, , 26-55. | 0.2 | 0 |