# Stephane Jacquemoud

List of Publications by Year
in descending order



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|---|---|---|---|
| 63 papers | 11,582 citations | 87723 38 h-index | 197535 49 g-index |
| 78 all docs | 78 docs citations | 78 times ranked | 6297 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | PROSPECT: A model of leaf optical properties spectra. Remote Sensing of Environment, 1990, 34, 75-91. | 4.6 | 1,841 |
| 2 | PROSPECT+SAIL models: A review of use for vegetation characterization. Remote Sensing of Environment, 2009, 113, S56-S66. | 4.6 | 1,178 |
| 3 | Detecting vegetation leaf water content using reflectance in the optical domain. Remote Sensing of Environment, 2001, 77, 22-33. | 4.6 | 828 |
| 4 | PROSPECT-4 and 5: Advances in the leaf optical properties model separating photosynthetic pigments. Remote Sensing of Environment, 2008, 112, 3030-3043. | 4.6 | 773 |
| 5 | Retrieval of foliar information about plant pigment systems from high resolution spectroscopy. Remote Sensing of Environment, 2009, 113, S67-S77. | 4.6 | 576 |
| 6 | Estimating leaf biochemistry using the PROSPECT leaf optical properties model. Remote Sensing of Environment, 1996, 56, 194-202. | 4.6 | 566 |
| 7 | PROSPECT-D: Towards modeling leaf optical properties through a complete lifecycle. Remote Sensing of Environment, 2017, 193, 204-215. | 4.6 | 432 |
| 8 | Hyperspectral remote sensing of foliar nitrogen content. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E185-92. | 3.3 | 389 |
| 9 | Comparison of Four Radiative Transfer Models to Simulate Plant Canopies Reflectance Direct and Inverse Mode. Remote Sensing of Environment, 2000, 74, 471-481. | 4.6 | 355 |
| 10 | Extraction of vegetation biophysical parameters by inversion of the PROSPECT + SAIL models on sugar beet canopy reflectance data. Application to TM and AVIRIS sensors. Remote Sensing of Environment, 1995, 52, 163-172. | 4.6 | 349 |
| 11 | Leaf optical properties with explicit description of its biochemical composition: Direct and inverse problems. Remote Sensing of Environment, 1996, 56, 104-117. | 4.6 | 332 |
| 12 | Optimizing spectral indices and chemometric analysis of leaf chemical properties using radiative transfer modeling. Remote Sensing of Environment, 2011, 115, 2742-2750. | 4.6 | 274 |
| 13 | Critique of stepwise multiple linear regression for the extraction of leaf biochemistry information from leaf reflectance data. Remote Sensing of Environment, 1996, 56, 182-193. | 4.6 | 241 |
| 14 | Modeling spectral and bidirectional soil reflectance. Remote Sensing of Environment, 1992, 41, 123-132. | 4.6 | 239 |
| 15 | Inversion of the PROSPECT + SAIL canopy reflectance model from AVIRIS equivalent spectra: Theoretical study. Remote Sensing of Environment, 1993, 44, 281-292. | 4.6 | 226 |
| 16 | Leaf BRDF measurements and model for specular and diffuse components differentiation. Remote Sensing of Environment, 2005, 98, 201-211. | 4.6 | 207 |
| 17 | Modeled analysis of the biophysical nature of spectral shifts and comparison with information content of broad bands. Remote Sensing of Environment, 1992, 41, 133-142. | 4.6 | 195 |
| 18 | Estimating Canopy Water Content of Chaparral Shrubs Using Optical Methods. Remote Sensing of Environment, 1998, 65, 280-291. | 4.6 | 190 |

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|---|---|---|---|
| 19 | 3-D mapping of a multi-layered Mediterranean forest using ALS data. Remote Sensing of Environment, 2012, 121, 210-223. | 4.6 | 174 |
| 20 | Design and analysis of numerical experiments to compare four canopy reflectance models. Remote Sensing of Environment, 2002, 79, 72-83. | 4.6 | 150 |
| 21 | Three-dimensional radiation transfer modeling in a dicotyledon leaf. Applied Optics, 1996, 35, 6585. | 2.1 | 146 |
| 22 | The soil line concept in remote sensing. International Journal of Remote Sensing, 1993, 7, 65-82. | 1.1 | 145 |
| 23 | Chlorophyll fluorescence emission spectrum inside a leaf. Photochemical and Photobiological Sciences, 2008, 7, 498-502. | 1.6 | 143 |
| 24 | Radiation transfer model intercomparison (RAMI) exercise. Journal of Geophysical Research, 2001, 106, 11937-11956. | 3.3 | 138 |
| 25 | Reliability of the estimation of vegetation characteristics by inversion of three canopy reflectance models on airborne POLDER data. Agronomy for Sustainable Development, 2002, 22, 555-565. | 0.8 | 103 |
| 26 | Modeling directionalâ€"hemispherical reflectance and transmittance of fresh and dry leaves from 0.4Î¼m to 5.7Î¼m with the PROSPECT-VISIR model. Remote Sensing of Environment, 2011, 115, 404-414. | 4.6 | 101 |
| 27 | Deriving leaf mass per area (LMA) from foliar reflectance across a variety of plant species using continuous wavelet analysis. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 87, 28-38. | 4.9 | 101 |
| 28 | Investigation of leaf biochemistry by statistics. Remote Sensing of Environment, 1995, 54, 180-188. | 4.6 | 99 |
| 29 | Use of spectral analogy to evaluate canopy reflectance sensitivity to leaf optical properties. Remote Sensing of Environment, 1994, 48, 253-260. | 4.6 | 95 |
| 30 | FluorMODleaf: A new leaf fluorescence emission model based on the PROSPECT model. Remote Sensing of Environment, 2010, 114, 155-167. | 4.6 | 94 |
| 31 | Simulation of photon transport in a three-dimensional leaf: implications for photosynthesis. Plant, Cell and Environment, 2001, 24, 1095-1103. | 2.8 | 92 |
| 32 | Predicting leaf gravimetric water content from foliar reflectance across a range of plant species using continuous wavelet analysis. Journal of Plant Physiology, 2012, 169, 1134-1142. | 1.6 | 86 |
| 33 | About the soil line concept in remote sensing. Advances in Space Research, 1993, 13, 281-284. | 1.2 | 78 |
| 34 | A new spectrogoniophotometer to measure leaf spectral and directional optical properties. Remote Sensing of Environment, 2007, 109, 107-117. | 4.6 | 75 |
| 35 | Evaluation of an improved version of SAIL model for simulating bidirectional reflectance of sugar beet canopies. Remote Sensing of Environment, 1997, 60, 247-257. | 4.6 | 69 |
| 36 | MARMIT: A multilayer radiative transfer model of soil reflectance to estimate surface soil moisture content in the solar domain (400â€"2500â€‰nm). Remote Sensing of Environment, 2018, 217, 1-17. | 4.6 | 64 |

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|---|---|---|---|
| 37 | An advanced photogrammetric method to measure surface roughness: Application to volcanic terrains in the Piton de la Fournaise, Reunion Island. Remote Sensing of Environment, 2013, 135, 1-11. | 4.6 | 62 |
| 38 | How the Optical Properties of Leaves Modify the Absorption and Scattering of Energy and Enhance Leaf Functionality. , 2020, , 349-384. | | 55 |
| 39 | Airborne Lidar Estimation of Aboveground Forest Biomass in the Absence of Field Inventory. Remote Sensing, 2016, 8, 653. | 1.8 | 43 |
| 40 | Reassessment of the temperature-emissivity separation from multispectral thermal infrared data: Introducing the impact of vegetation canopy by simulating the cavity effect with the SAIL-Thermique model. Remote Sensing of Environment, 2017, 198, 160-172. | 4.6 | 34 |
| 41 | Surface roughness retrieval by inversion of the Hapke model: A multiscale approach. Icarus, 2017, 290, 63-80. | 1.1 | 33 |
| 42 | The EChO science case. Experimental Astronomy, 2015, 40, 329-391. | 1.6 | 31 |
| 43 | Retrieving soil surface roughness with the Hapke photometric model: Confrontation with the ground truth. Remote Sensing of Environment, 2019, 225, 1-15. | 4.6 | 16 |
| 44 | Geometrical modelling of soil bidirectional reflectance incorporating specular effects. International Journal of Remote Sensing, 1996, 17, 3691-3704. | 1.3 | 15 |
| 45 | Canopy Density Model: A New ALS-Derived Product to Generate Multilayer Crown Cover Maps. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6776-6790. | 2.7 | 14 |
| 46 | Quantification of L-band InSAR coherence over volcanic areas using LiDAR and in situ measurements. Remote Sensing of Environment, 2014, 152, 202-216. | 4.6 | 13 |
| 47 | Reply to Townsend et al.: Decoupling contributions from canopy structure and leaf optics is critical for remote sensing leaf biochemistry. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1075. | 3.3 | 12 |
| 48 | Reply to Ollinger et al.: Remote sensing of leaf nitrogen and emergent ecosystem properties. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2438. | 3.3 | 11 |
| 49 | ND-space: Normalized difference spectral mapping. Remote Sensing of Environment, 2021, 264, 112622. | 4.6 | 10 |
| 50 | HYPXIM: A second generation high spatial resolution hyperspectral satellite for dual applications. , 2013, , . | | 7 |
| 51 | Leaf Optical Properties in Different Wavelength Domains. , 2019, , 124-169. | | 4 |
| 52 | Variation Due to Leaf Structural, Chemical, and Physiological Traits. , 2019, , 170-194. | | 3 |
| 53 | A Simulation-Based Error Budget of the TES Method for the Design of the Spectral Configuration of the Micro-Bolometer-Based MISTIGRI Thermal Infrared Sensor. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-19. | 2.7 | 3 |
| 54 | Spectroscopy of Leaf Molecules. , 2019, , 48-73. | | 2 |

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|---|---|---|---|
| 55 | Measurement of Leaf Optical Properties. , 2019, , 74-123. | | 1 |
| 56 | Variations Due to Leaf Abiotic and Biotic Factors. , 2019, , 195-228. | | 1 |
| 57 | Comprehensive Reviews of Leaf Optical Properties Models. , 2019, , 229-264. | | 1 |
| 58 | Modeling Leaf Optical Properties:prospect. , 2019, , 265-291. | | 1 |
| 59 | Extraction of Leaf Traits. , 2019, , 320-356. | | 0 |
| 60 | A Brief History of Leaf Color. , 2019, , 1-11. | | 0 |
| 61 | Leaf Biophysics. , 2019, , 12-47. | | 0 |
| 62 | Modeling Three-Dimensional Leaf Optical Properties:raytran. , 2019, , 292-319. | | 0 |
| 63 | Applications of Leaf Optics. , 2019, , 357-403. | | 0 |