Maria Paz Diago Santamaria

List of Publications by Year
in descending order

69 papers	2,680 citations	126901 33 h-index	197805 49 g-index
70 all docs	70 docs citations	70 times ranked	2498 citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment of vineyard water status variability by thermal and multispectral imagery using an unmanned aerial vehicle (UAV). Irrigation Science, 2012, 30, 511-522.	2.8	335
2	Solar ultraviolet radiation is necessary to enhance grapevine fruit ripening transcriptional and phenolic responses. BMC Plant Biology, 2014, 14, 183.	3.6	132
3	Grapevine Yield and Leaf Area Estimation Using Supervised Classification Methodology on RGB Images Taken under Field Conditions. Sensors, 2012, 12, 16988-17006.	3.8	113
4	Validation of thermal indices for water status identification in grapevine. Agricultural Water Management, 2014, 134, 60-72.	5.6	102
5	Identification of grapevine varieties using leaf spectroscopy and partial least squares. Computers and Electronics in Agriculture, 2013, 99, 7-13.	7.7	75
6	Automated early yield prediction in vineyards from on-the-go image acquisition. Computers and Electronics in Agriculture, 2018, 144, 26-36.	7.7	73
7	Vineyard water status assessment using on-the-go thermal imaging and machine learning. PLoS ONE, 2018, 13, e0192037.	2.5	65
8	Assessment of the spatial variability of anthocyanins in grapes using a fluorescence sensor: relationships with vine vigour and yield. Precision Agriculture, 2012, 13, 457-472.	6.0	62
9	Impact of Prebloom and Fruit Set Basal Leaf Removal on the Flavonol and Anthocyanin Composition of Tempranillo Grapes. American Journal of Enology and Viticulture, 2012, 63, 367-376.	1.7	60
10	Assessment of amino acids and total soluble solids in intact grape berries using contactless Vis and NIR spectroscopy during ripening. Talanta, 2019, 199, 244-253.	5.5	57
11	A new method for pedicel/peduncle detection and size assessment of grapevine berries and other fruits by image analysis. Biosystems Engineering, 2014, 117, 62-72.	4.3	54
12	A new methodology for estimating the grapevine-berry number per cluster using image analysis. Biosystems Engineering, 2017, 156, 80-95.	4.3	53
13	vitisBerry: An Android-smartphone application to early evaluate the number of grapevine berries by means of image analysis. Computers and Electronics in Agriculture, 2018, 148, 19-28.	7.7	51
14	On-The-Go Hyperspectral Imaging Under Field Conditions and Machine Learning for the Classification of Grapevine Varieties. Frontiers in Plant Science, 2018, 9, 1102.	3.6	51
15	Mechanical yield regulation in winegrapes: comparison of early defoliation and crop thinning. Australian Journal of Grape and Wine Research, 2012, 18, 344-352.	2.1	50
16	Thermal imaging to detect spatial and temporal variation in the water status of grapevine (<i>Vitis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.9	50
17	Using RPAS Multi-Spectral Imagery to Characterise Vigour, Leaf Development, Yield Components and Berry Composition Variability within a Vineyard. Remote Sensing, 2015, 7, 14458-14481.	4.0	47
18	Phenolic composition of Tempranillo wines following early defoliation of the vines. Journal of the Science of Food and Agriculture, 2012, 92, 925-934.	3.5	45

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19	Support Vector Machine and Artificial Neural Network Models for the Classification of Grapevine Varieties Using a Portable NIR Spectrophotometer. PLoS ONE, 2015, 10, e0143197.	2.5	45
20	Estimation of total soluble solids in grape berries using a handâ€held <scp>NIR</scp> spectrometer under field conditions. Journal of the Science of Food and Agriculture, 2016, 96, 3007-3016.	3.5	45
21	vitisFlowerÂ®: Development and Testing of a Novel Android-Smartphone Application for Assessing the Number of Grapevine Flowers per Inflorescence Using Artificial Vision Techniques. Sensors, 2015, 15, 21204-21218.	3.8	44
22	Automatic discrimination of grapevine (<i>Vitis vinifera</i>L.) clones using leaf hyperspectral imaging and partial least squares. Journal of Agricultural Science, 2015, 153, 455-465.	1.3	44
23	Smart applications and digital technologies in viticulture: A review. Smart Agricultural Technology, 2021, 1, 100005.	5.4	44
24	Assessment of grape cluster yield components based on 3D descriptors using stereo vision. Food Control, 2015, 50, 273-282.	5.5	43
25	Assessment of flower number per inflorescence in grapevine by image analysis under field conditions. Journal of the Science of Food and Agriculture, 2014, 94, 1981-1987.	3.5	42
26	Assessment of cluster yield components by image analysis. Journal of the Science of Food and Agriculture, 2015, 95, 1274-1282.	3.5	40
27	Nonâ€destructive assessment of grapevine water status in the field using a portable <scp>NIR</scp> spectrophotometer. Journal of the Science of Food and Agriculture, 2017, 97, 3772-3780.	3.5	40
28	Automated grapevine flower detection and quantification method based on computer vision and deep learning from on-the-go imaging using a mobile sensing platform under field conditions. Computers and Electronics in Agriculture, 2020, 178, 105796.	7.7	40
29	Spatial variability of grape composition in a Tempranillo (Vitis vinifera L.) vineyard over a 3-year survey. Precision Agriculture, 2013, 14, 40-58.	6.0	39
30	Data Mining and NIR Spectroscopy in Viticulture: Applications for Plant Phenotyping under Field Conditions. Sensors, 2016, 16, 236.	3.8	39
31	Effects of soil erosion on agro-ecosystem services and soil functions: A multidisciplinary study in nineteen organically farmed European and Turkish vineyards. Journal of Environmental Management, 2018, 223, 614-624.	7.8	39
32	Effects of mechanical thinning on fruit and wine composition and sensory attributes of Grenache and Tempranillo varieties (Vitis vinifera L.). Australian Journal of Grape and Wine Research, 2010, 16, 314-326.	2.1	37
33	Early leaf removal impact on volatile composition of Tempranillo wines. Journal of the Science of Food and Agriculture, 2012, 92, 935-942.	3.5	37
34	Development and Validation of a New Methodology to Assess the Vineyard Water Status by On-the-Go Near Infrared Spectroscopy. Frontiers in Plant Science, 2018, 9, 59.	3.6	35
35	A new method for assessment of bunch compactness using automated image analysis. Australian Journal of Grape and Wine Research, 2015, 21, 101-109.	2.1	34
36	On-the-go hyperspectral imaging for the in-field estimation of grape berry soluble solids and anthocyanin concentration. Australian Journal of Grape and Wine Research, 2019, 25, 127-133.	2.1	34

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37	Use of Visible and Short-Wave Near-Infrared Hyperspectral Imaging To Fingerprint Anthocyanins in Intact Grape Berries. Journal of Agricultural and Food Chemistry, 2016, 64, 7658-7666.	5.2	33
38	Using an Automatic Resistivity Profiler Soil Sensor On-The-Go in Precision Viticulture. Sensors, 2013, 13, 1121-1136.	3.8	31
39	Spatio-temporal dynamics of grape anthocyanin accumulation in a Tempranillo vineyard monitored by proximal sensing. Australian Journal of Grape and Wine Research, 2012, 18, 173-182.	2.1	30
40	Effects of ambient solar UV radiation on grapevine leaf physiology and berry phenolic composition along one entire season under Mediterranean field conditions. Plant Physiology and Biochemistry, 2016, 109, 374-386.	5.8	28
41	Effects of timing of leaf removal on yield, berry maturity, wine composition and sensory properties of cv. Grenache grown under non irrigated conditions. Oeno One, 2016, 42, 221.	1.4	27
42	Effects of <scp>UV</scp> exclusion on the physiology and phenolic composition of leaves and berries of <i>Vitis vinifera</i> cv. Graciano. Journal of the Science of Food and Agriculture, 2015, 95, 409-416.	3.5	26
43	Monitoring and Mapping Vineyard Water Status Using Non-Invasive Technologies by a Ground Robot. Remote Sensing, 2021, 13, 2830.	4.0	26
44	Image analysisâ€based modelling for flower number estimation in grapevine. Journal of the Science of Food and Agriculture, 2017, 97, 784-792.	3.5	25
45	Onâ€theâ€go assessment of vineyard canopy porosity, bunch and leaf exposure by image analysis. Australian Journal of Grape and Wine Research, 2019, 25, 363-374.	2.1	24
46	In field quantification and discrimination of different vineyard water regimes by on-the-go NIR spectroscopy. Biosystems Engineering, 2018, 165, 47-58.	4.3	23
47	A Non-Invasive Method Based on Computer Vision for Grapevine Cluster Compactness Assessment Using a Mobile Sensing Platform under Field Conditions. Sensors, 2019, 19, 3799.	3.8	23
48	On-The-Go VIS + SW âˆ’ NIR Spectroscopy as a Reliable Monitoring Tool for Grape Composition within the Vineyard. Molecules, 2019, 24, 2795.	3.8	23
49	Calibration of non-invasive fluorescence-based sensors for the manual and on-the-go assessment of grapevine vegetative status in the field. Australian Journal of Grape and Wine Research, 2016, 22, 438-449.	2.1	21
50	Assessment of Vineyard Canopy Porosity Using Machine Vision. American Journal of Enology and Viticulture, 2016, 67, 229-238.	1.7	20
51	Future opportunities of proximal near infrared spectroscopy approaches to determine the variability of vineyard water status. Australian Journal of Grape and Wine Research, 2017, 23, 409-414.	2.1	18
52	Towards the definition of optimal grape harvest time in Grenache grapevines: Nitrogenous maturity. Scientia Horticulturae, 2018, 239, 9-16.	3.6	14
53	Vineyard pruning weight assessment by machine vision: towards an on-the-go measurement system. Oeno One, 2019, 53, .	1.4	13
54	Deep learning and computer vision for assessing the number of actual berries in commercial vineyards. Biosystems Engineering, 2022, 218, 175-188.	4.3	11

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55	ASSESSMENT OF GRAPEVINE WATER STATUS FROM HYPERSPECTRAL IMAGING OF LEAVES. Acta Horticulturae, 2014, , 89-96.	0.2	10
56	Quantifying spatio-temporal variation of leaf chlorophyll and nitrogen contents in vineyards. Biosystems Engineering, 2016, 150, 201-213.	4.3	10
57	Feature extraction on vineyard by Gustafson Kessel FCM and K-means. , 2012, , .		9
58	Mapping and managing vineyard homogeneous zones through proximal geoelectrical sensing. Archives of Agronomy and Soil Science, 2018, 64, 409-418.	2.6	9
59	Non-Invasive Monitoring of Berry Ripening Using On-the-Go Hyperspectral Imaging in the Vineyard. Agronomy, 2021, 11, 2534.	3.0	6
60	Assessment of downy mildew in grapevine using computer vision and fuzzy logic. Development and validation of a new method. Oeno One, 2022, 56, 41-53.	1.4	6
61	APPLICATIONS OF COMPUTER VISION TECHNIQUES IN VITICULTURE TO ASSESS CANOPY FEATURES, CLUSTER MORPHOLOGY AND BERRY SIZE. Acta Horticulturae, 2013, , 77-84.	0.2	5
62	On-the-go thermal imaging for water status assessment in commercial vineyards. Advances in Animal Biosciences, 2017, 8, 520-524.	1.0	5
63	DEVELOPMENT OF A WATER STRESS ALERT SYSTEM EMBEDDED IN A DSS FOR INTEGRATED VINEYARD MANAGEMENT. Acta Horticulturae, 2014, , 565-572.	0.2	3
64	Appraisal of wine color and phenols from a non-invasive grape berry fluorescence method. Oeno One, 2016, 47, 55.	1.4	3
65	MECHANICAL CROP THINNING AND EARLY DEFOLIATION AS NOVEL TOOLS FOR YIELD MANAGEMENT IN VSP GRAPEVINES. Acta Horticulturae, 2013, , 279-284.	0.2	1
66	19. Assessing actual number of grapevine berries using linear methods and machine learning. , 2021, , .		1
67	Model Compound Vulcanization And IGC As Prediction Tools In Carbon Black Effect On Vulcanization. Materials Research Society Symposia Proceedings, 2002, 731, 8111.	0.1	0
68	In-field assessment of grapevine water status using a portable NIR spectrophotometer. Acta Horticulturae, 2017, , 167-172.	0.2	0
69	Hyperspectral imaging application under field conditions: assessment of the spatio-temporal variability of grape composition within a vineyard. , 2019, , .		0