Jean-michel Roger

List of Publications by Year in Descending Order

130 papers	**3,301** citations	**29** h-index	**53** g-index
140 ext. papers	**3,999** ext. citations	**5** avg, IF	**5.74** L-index

#	Paper	IF	Citations
130	Potential of Multiway PLS (N-PLS) Regression Method to Analyse Time-Series of Multispectral Images: A Case Study in Agriculture. *Remote Sensing*, **2022**, 14, 216	5	2
129	Pre-processing ensembles with response oriented sequential alternation calibration (PROSAC): A step towards ending the pre-processing search and optimization quest for near-infrared spectral modelling. *Chemometrics and Intelligent Laboratory Systems*, **2022**, 222, 104497	3.8	3
128	Domain invariant covariate selection (Di-CovSel) for selecting generalized features across domains. *Chemometrics and Intelligent Laboratory Systems*, **2022**, 222, 104499	3.8	1
127	Is It Possible to Assess Heatwave Impact on Grapevines at the Regional Level with Time Series of Satellite Images?. *Agronomy*, **2022**, 12, 563	3.6	0
126	A novel methodology for determining effectiveness of preprocessing methods in reducing undesired spectral variability in near infrared spectra. *Journal of Near Infrared Spectroscopy*, **2022**, 30, 74-88	1.5	0
125	Diesel cetane number estimation from NIR spectra of hydrocracking total effluent. *Fuel*, **2022**, 324, 124647	7.4	1
124	Unveiling non-linear water effects in near infrared spectroscopy: A study on organic wastes during drying using chemometrics. *Waste Management*, **2021**, 122, 36-48	8.6	6
123	Relating Near-Infrared Light Path-Length Modifications to the Water Content of Scattering Media in Near-Infrared Spectroscopy: Toward a New Bouguer-Beer-Lambert Law. *Analytical Chemistry*, **2021**, 93, 6817-6823	7.8	4
122	Recent trends in multi-block data analysis in chemometrics for multi-source data integration. *TrAC - Trends in Analytical Chemistry*, **2021**, 137, 116206	14.6	24
121	Fast at-line characterization of solid organic waste: Comparing analytical performance of different compact near infrared spectroscopic systems with different measurement configurations. *Waste Management*, **2021**, 126, 664-673	8.6	4
120	On-site substrate characterization in the anaerobic digestion context: A dataset of near infrared spectra acquired with four different optical systems on freeze-dried and ground organic waste. *Data in Brief*, **2021**, 36, 107126	1.2	
119	A short note on achieving similar performance to deep learning with practical chemometrics. *Chemometrics and Intelligent Laboratory Systems*, **2021**, 214, 104336	3.8	3
118	Improved prediction of tablet properties with near-infrared spectroscopy by a fusion of scatter correction techniques. *Journal of Pharmaceutical and Biomedical Analysis*, **2021**, 192, 113684	3.5	6
117	Improved prediction of fuel properties with near-infrared spectroscopy using a complementary sequential fusion of scatter correction techniques. *Talanta*, **2021**, 223, 121693	6.2	9
116	Multi-block classification of chocolate and cocoa samples into sensory poles. *Food Chemistry*, **2021**, 340, 127904	8.5	7
115	FRUITNIR-GUI: A graphical user interface for correcting external influences in multi-batch near infrared experiments related to fruit quality prediction. *Postharvest Biology and Technology*, **2021**, 175, 111414	6.2	7
114	Parallel pre-processing through orthogonalization (PORTO) and its application to near-infrared spectroscopy. *Chemometrics and Intelligent Laboratory Systems*, **2021**, 212, 104190	3.8	11

113	Sequential fusion of information from two portable spectrometers for improved prediction of moisture and soluble solids content in pear fruit. *Talanta*, **2021**, 223, 121733	6.2	28
112	Chemometric pre-processing can negatively affect the performance of near-infrared spectroscopy models for fruit quality prediction. *Talanta*, **2021**, 229, 122303	6.2	16
111	Monte Carlo methods for estimating Mallows's Cp and AIC criteria for PLSR models. Illustration on agronomic spectroscopic NIR data. *Journal of Chemometrics*, **2021**, 35, e3369	1.6	1
110	A novel robust PLS regression method inspired from boosting principles: RoBoost-PLSR. *Analytica Chimica Acta*, **2021**, 1179, 338823	6.6	3
109	Are standard sample measurements still needed to transfer multivariate calibration models between near-infrared spectrometers? The answer is not always. *TrAC - Trends in Analytical Chemistry*, **2021**, 143, 116331	14.6	13
108	Potential of high-spectral resolution for field phenotyping in plant breeding: Application to maize under water stress. *Computers and Electronics in Agriculture*, **2021**, 189, 106385	6.5	2
107	Untargeted analysis of TD-NMR signals using a multivariate curve resolution approach: Application to the water-imbibition kinetics of Arabidopsis seeds. *Talanta*, **2021**, 233, 122525	6.2	1
106	Postharvest ripeness assessment of Hass avocado based on development of a new ripening index and Vis-NIR spectroscopy. *Postharvest Biology and Technology*, **2021**, 181, 111683	6.2	2
105	Two standard-free approaches to correct for external influences on near-infrared spectra to make models widely applicable. *Postharvest Biology and Technology*, **2020**, 170, 111326	6.2	23
104	A Big-data algorithm for KNN-PLS. *Chemometrics and Intelligent Laboratory Systems*, **2020**, 203, 104076	3.8	7
103	SPORT pre-processing can improve near-infrared quality prediction models for fresh fruits and agro-materials. *Postharvest Biology and Technology*, **2020**, 168, 111271	6.2	25
102	A note on spectral data simulation. *Chemometrics and Intelligent Laboratory Systems*, **2020**, 200, 103979	3.8	4
101	Fault detection with moving window PCA using NIRS spectra for monitoring the anaerobic digestion process. *Water Science and Technology*, **2020**, 81, 367-382	2.2	2
100	Pre-processing Methods **2020**, 1-75		4
99	Sequential preprocessing through ORThogonalization (SPORT) and its application to near infrared spectroscopy. *Chemometrics and Intelligent Laboratory Systems*, **2020**, 199, 103975	3.8	38
98	Comparison of locally weighted PLS strategies for regression and discrimination on agronomic NIR data. *Journal of Chemometrics*, **2020**, 34, e3209	1.6	8
97	Subpixel detection of peanut in wheat flour using a matched subspace detector algorithm and near-infrared hyperspectral imaging. *Talanta*, **2020**, 216, 120993	6.2	7
96	Detection of early imbalances in semi-continuous anaerobic co-digestion process based on instantaneous biogas production rate. *Water Research*, **2020**, 171, 115444	12.5	9

95	Reduction of repeatability error for analysis of variance-Simultaneous Component Analysis (REP-ASCA): Application to NIR spectroscopy on coffee sample. *Analytica Chimica Acta*, **2020**, 1101, 23-31	6.6	8
94	A partial least squares-based approach to assess the light penetration depth in wheat flour by near infrared hyperspectral imaging. *Journal of Near Infrared Spectroscopy*, **2020**, 28, 25-36	1.5	6
93	Visible and Near-Infrared Multispectral Features in Conjunction with Artificial Neural Network and Partial Least Squares for Predicting Biochemical and Micro-Structural Features of Beef Muscles. *Foods*, **2020**, 9,	4.9	3
92	MBA-GUI: A chemometric graphical user interface for multi-block data visualisation, regression, classification, variable selection and automated pre-processing. *Chemometrics and Intelligent Laboratory Systems*, **2020**, 205, 104139	3.8	20
91	Utilising variable sorting for normalisation to correct illumination effects in close-range spectral images of potato plants. *Biosystems Engineering*, **2020**, 197, 318-323	4.8	7
90	New data preprocessing trends based on ensemble of multiple preprocessing techniques. *TrAC - Trends in Analytical Chemistry*, **2020**, 132, 116045	14.6	60
89	Dataset of visible-near infrared handheld and micro-spectrometers - comparison of the prediction accuracy of sugarcane properties. *Data in Brief*, **2020**, 31, 106013	1.2	6
88	Multiblock Analysis Applied to TD-NMR of Butters and Related Products. *Applied Sciences (Switzerland)*, **2020**, 10, 5317	2.6	1
87	Multiblock Analysis to Relate Polyphenol Targeted Mass Spectrometry and Sensory Properties of Chocolates and Cocoa Beans. *Metabolites*, **2020**, 10,	5.6	3
86	SO-CovSel: A novel method for variable selection in a multiblock framework. *Journal of Chemometrics*, **2020**, 34, e3120	1.6	26
85	VSN: Variable sorting for normalization. *Journal of Chemometrics*, **2020**, 34, e3164	1.6	33
84	Using spatial information for evaluating the quality of prediction maps from hyperspectral images: A geostatistical approach. *Analytica Chimica Acta*, **2019**, 1077, 116-128	6.6	5
83	Potential of VIS-NIR spectroscopy to characterize and discriminate topsoils of different soil types in the Triffa plain (Morocco). *Soil Science Annual*, **2019**, 70, 54-63	2	4
82	Early detection of the fungal disease "apple scab" using SWIR hyperspectral imaging **2019**,		10
81	Automatic de-noising of close-range hyperspectral images with a wavelength-specific shearlet-based image noise reduction method. *Sensors and Actuators B: Chemical*, **2019**, 281, 1034-1044	8.5	16
80	Volatile compounds profiling by using proton transfer reaction-time of flight-mass spectrometry (PTR-ToF-MS). The case study of dark chocolates organoleptic differences. *Journal of Mass Spectrometry*, **2019**, 54, 92-119	2.2	24
79	Near-Infrared Spectrum Analysis to Determine Relationships between Biochemical Composition and Anaerobic Digestion Performances. *Chemical Engineering and Technology*, **2018**, 41, 727-738	2	4
78	Near infrared hyperspectral dataset of healthy and infected apple tree leaves images for the early detection of apple scab disease. *Data in Brief*, **2018**, 16, 967-971	1.2	9

77	Test of sampling methods to optimize the calibration of vine water status spatial models. *Precision Agriculture*, **2018**, 19, 365-378	5.6	5
76	Chemometrics in analytical chemistry-part II: modeling, validation, and applications. *Analytical and Bioanalytical Chemistry*, **2018**, 410, 6691-6704	4.4	62
75	A review of orthogonal projections for calibration. *Journal of Chemometrics*, **2018**, 32, e3045	1.6	5
74	Sensitivity of clay content prediction to spectral configuration of VNIR/SWIR imaging data, from multispectral to hyperspectral scenarios. *Remote Sensing of Environment*, **2018**, 204, 18-30	13.2	38
73	Potential of vis-NIR spectroscopy to monitor the silica precipitation reaction. *Analytical and Bioanalytical Chemistry*, **2017**, 409, 785-796	4.4	4
72	Curve fitting in Fourier transform near infrared spectroscopy used for the analysis of bacterial cells. *Journal of Near Infrared Spectroscopy*, **2017**, 25, 151-164	1.5	6
71	Fast Fluorescence Spectroscopy Methodology to Monitor the Evolution of Extra Virgin Olive Oils Under Illumination. *Food and Bioprocess Technology*, **2017**, 10, 949-961	5.1	21
70	Clay content mapping from airborne hyperspectral Vis-NIR data by transferring a laboratory regression model. *Geoderma*, **2017**, 298, 54-66	6.7	27
69	Chemometrics in analytical chemistry-part I: history, experimental design and data analysis tools. *Analytical and Bioanalytical Chemistry*, **2017**, 409, 5891-5899	4.4	59
68	Predictive ability of soil properties to spectral degradation from laboratory Vis-NIR spectroscopy data. *Geoderma*, **2017**, 288, 143-153	6.7	46
67	Application of independent components analysis with the JADE algorithm and NIR hyperspectral imaging for revealing food adulteration. *Journal of Food Engineering*, **2016**, 168, 7-15	6	46
66	An Investigation into the Effects of Pressure on Gas Detection Using an Integrating Sphere as Multipass Gas Absorption Cell: Analysis and Discussion. *Journal of Near Infrared Spectroscopy*, **2016**, 24, 405-412	1.5	2
65	A new optical method coupling light polarization and Vis-NIR spectroscopy to improve the measurement of soil carbon content. *Soil and Tillage Research*, **2016**, 155, 461-470	6.5	9
64	An iterative approach for compound detection in an unknown pharmaceutical drug product: Application on Raman microscopy. *Journal of Pharmaceutical and Biomedical Analysis*, **2016**, 120, 342-51	3.5	7
63	Hyperspectral Imaging to Evaluate the Effect of IrrigationWater Salinity in Lettuce. *Applied Sciences (Switzerland)*, **2016**, 6, 412	2.6	13
62	Simulation Method Linking Dense Microalgal Culture Spectral Properties in the 400-750 nm Range to the Physiology of the Cells. *Applied Spectroscopy*, **2016**, 70, 1018-33	3.1	2
61	Application-Dedicated Selection of Filters (ADSF) using covariance maximization and orthogonal projection. *Analytica Chimica Acta*, **2016**, 921, 1-12	6.6	0
60	DROP-D: Dimension reduction by orthogonal projection for discrimination. *Chemometrics and Intelligent Laboratory Systems*, **2015**, 146, 221-231	3.8	4

59	Setting local rank constraints by orthogonal projections for image resolution analysis: application to the determination of a low dose pharmaceutical compound. *Analytica Chimica Acta*, **2015**, 892, 49-58	6.6	2
58	Combining linear polarization spectroscopy and the Representative Layer Theory to measure the Beer-Lambert law absorbance of highly scattering materials. *Analytica Chimica Acta*, **2015**, 853, 486-494	6.6	50
57	Distribution of a low dose compound within pharmaceutical tablet by using multivariate curve resolution on Raman hyperspectral images. *Journal of Pharmaceutical and Biomedical Analysis*, **2015**, 103, 35-43	3.5	28
56	Analysis of the uncertainties affecting predictions of clay contents from VNIR/SWIR hyperspectral data. *Remote Sensing of Environment*, **2015**, 156, 58-70	13.2	22
55	Detection and Quantification of Peanut Traces in Wheat Flour by near Infrared Hyperspectral Imaging Spectroscopy Using Principal-Component Analysis. *Journal of Near Infrared Spectroscopy*, **2015**, 23, 15-22	1.5	38
54	Improvement of the chemical content prediction of a model powder system by reducing multiple scattering using polarized light spectroscopy. *Applied Spectroscopy*, **2015**, 69, 95-102	3.1	8
53	Application of independent component analysis on Raman images of a pharmaceutical drug product: pure spectra determination and spatial distribution of constituents. *Journal of Pharmaceutical and Biomedical Analysis*, **2014**, 90, 78-84	3.5	48
52	Comparison of the efficacy of spectral pre-treatments for wheat and weed discrimination in outdoor conditions. *Computers and Electronics in Agriculture*, **2014**, 108, 242-249	6.5	17
51	A simple, projection-based geometric model for several linear pretreatment and calibration methods. *Chemometrics and Intelligent Laboratory Systems*, **2014**, 138, 48-56	3.8	3
50	Potential of a spectroscopic measurement method using adding-doubling to retrieve the bulk optical properties of dense microalgal media. *Applied Spectroscopy*, **2014**, 68, 1154-67	3.1	10
49	Major Issues of Diffuse Reflectance NIR Spectroscopy in the Specific Context of Soil Carbon Content Estimation. *Advances in Agronomy*, **2014**, 123, 145-175	7.7	27
48	3D front face solid-phase fluorescence spectroscopy combined with Independent Components Analysis to characterize organic matter in model soils. *Talanta*, **2014**, 125, 146-52	6.2	14
47	Raman model development for the protein conformational state classification in different freeze-dried formulations. *Analytica Chimica Acta*, **2014**, 825, 42-50	6.6	9
46	Calibration transfer of intact olive NIR spectra between a pre-dispersive instrument and a portable spectrometer. *Computers and Electronics in Agriculture*, **2013**, 96, 202-208	6.5	48
45	A family of regression methods derived from standard PLSR. *Chemometrics and Intelligent Laboratory Systems*, **2013**, 120, 116-125	3.8	9
44	Raman spectroscopy and multivariate analysis for the rapid discrimination between native-like and non-native states in freeze-dried protein formulations. *European Journal of Pharmaceutics and Biopharmaceutics*, **2013**, 85, 263-71	5.7	28
43	Monitoring spinach shelf-life with hyperspectral image through packaging films. *Journal of Food Engineering*, **2013**, 119, 353-361	6	31
42	Examination of the quality of spinach leaves using hyperspectral imaging. *Postharvest Biology and Technology*, **2013**, 85, 8-17	6.2	44

41	Applicability of Vis-NIR hyperspectral imaging for monitoring wood moisture content (MC). *Holzforschung*, **2013**, 67, 307-314	2	40
40	Comparative study of two methods (hexane extraction and NMR) for the determination of oil content in an individual olive fruit. *European Journal of Lipid Science and Technology*, **2013**, 115, 1070-1077	2	4
39	Combination of optical and non-destructive mechanical techniques for the measurement of maturity in peach. *Journal of Food Engineering*, **2012**, 108, 150-157	6	30
38	Pretreatments by means of orthogonal projections. *Chemometrics and Intelligent Laboratory Systems*, **2012**, 117, 61-69	3.8	31
37	An iterative hyperspectral image segmentation method using a cross analysis of spectral and spatial information. *Chemometrics and Intelligent Laboratory Systems*, **2012**, 117, 213-223	3.8	12
36	Detection of abnormal fermentations in wine process by multivariate statistics and pattern recognition techniques. *Journal of Biotechnology*, **2012**, 159, 336-41	3.7	12
35	A new formulation to estimate the variance of model prediction. Application to near infrared spectroscopy calibration. *Analytica Chimica Acta*, **2012**, 721, 28-34	6.6	7
34	Application of direct calibration in multivariate image analysis of heterogeneous materials. *Analytica Chimica Acta*, **2012**, 734, 45-53	6.6	4
33	Removing the effect of soil moisture from NIR diffuse reflectance spectra for the prediction of soil organic carbon. *Geoderma*, **2011**, 167-168, 118-124	6.7	173
32	Discrimination of corn from monocotyledonous weeds with ultraviolet (UV) induced fluorescence. *Applied Spectroscopy*, **2011**, 65, 10-9	3.1	14
31	A technical opportunity index adapted to zone-specific management. *Precision Agriculture*, **2011**, 12, 130-145	5.6	16
30	Predictive power of LDA to discriminate abnormal wine fermentations. *Journal of Chemometrics*, **2011**, 25, 382-388	1.6	4
29	How to build a robust model against perturbation factors with only a few reference values: A chemometric challenge at Chimiométrie 2007 *Chemometrics and Intelligent Laboratory Systems*, **2011**, 106, 152-159	3.8	13
28	Comparison of multispectral indexes extracted from hyperspectral images for the assessment of fruit ripening. *Journal of Food Engineering*, **2011**, 104, 612-620	6	49
27	Autofluorescence of grape berries following Botrytis cinerea infection. *International Journal of Remote Sensing*, **2011**, 32, 3835-3849	3.1	4
26	Evaluation of oil-palm fungal disease infestation with canopy hyperspectral reflectance data. *Sensors*, **2010**, 10, 734-47	3.8	55
25	Improved discrimination between monocotyledonous and dicotyledonous plants for weed control based on the blue-green region of ultraviolet-induced fluorescence spectra. *Applied Spectroscopy*, **2010**, 64, 30-6	3.1	9
24	Improvement of direct calibration in spectroscopy. *Analytica Chimica Acta*, **2010**, 668, 130-6	6.6	10

23	Assessing yeast viability from cell size measurements?. *Journal of Biotechnology*, **2010**, 149, 74-80	3.7	26
22	Critical review of chemometric indicators commonly used for assessing the quality of the prediction of soil attributes by NIR spectroscopy. *TrAC - Trends in Analytical Chemistry*, **2010**, 29, 1073-1081	14.6	494
21	Improving the transfer of near infrared prediction models by orthogonal methods. *Chemometrics and Intelligent Laboratory Systems*, **2009**, 99, 57-65	3.8	38
20	Effects of preprocessing of ultraviolet-induced fluorescence spectra in plant fingerprinting applications. *Applied Spectroscopy*, **2008**, 62, 747-52	3.1	6
19	Removing the Block Effects in Calibration by Means of Dynamic Orthogonal Projection. Application to the Year Effect Correction for Wheat Protein Prediction. *Journal of Near Infrared Spectroscopy*, **2008**, 16, 311-315	1.5	17
18	Hyperspectral Imaging System Calibration Using Image Translations and Fourier Transform. *Journal of Near Infrared Spectroscopy*, **2008**, 16, 371-380	1.5	1
17	Management zone delineation using a modified watershed algorithm. *Precision Agriculture*, **2008**, 9, 233-250	3.7	27
16	Correction of moisture effects on near infrared calibration for the analysis of phenol content in eucalyptus wood extracts. *Annals of Forest Science*, **2008**, 65, 803-803	3.1	17
15	Spatial data fusion for qualitative estimation of fuzzy request zones: Application on precision viticulture. *Fuzzy Sets and Systems*, **2007**, 158, 535-554	3.7	17
14	An indium phosphide-based near-infrared MOEMS microspectrometer for agri-food and environmental monitoring **2007**,		3
13	Non-destructive tests on the prediction of apple fruit flesh firmness and soluble solids content on tree and in shelf life. *Journal of Food Engineering*, **2006**, 77, 254-260	6	205
12	Least-squares support vector machines modelization for time-resolved spectroscopy. *Applied Optics*, **2005**, 44, 7091-7	1.7	10
11	MADSTRESS: a linear approach for evaluating scattering and absorption coefficients of samples measured using time-resolved spectroscopy in reflection. *Applied Spectroscopy*, **2005**, 59, 1229-35	3.1	20
10	Robustness of models developed by multivariate calibration. Part II: The influence of pre-processing methods. *TrAC - Trends in Analytical Chemistry*, **2005**, 24, 437-445	14.6	107
9	Robustness of models developed by multivariate calibration. Part I. *TrAC - Trends in Analytical Chemistry*, **2004**, 23, 157-170	14.6	83
8	Robustness of Models Based on NIR Spectra for Sugar Content Prediction in Apples. *Journal of Near Infrared Spectroscopy*, **2003**, 11, 97-107	1.5	37
7	Authenticating white grape must variety with classification models based on aroma sensors, FT-IR and UV spectrometry. *Journal of Food Engineering*, **2003**, 60, 407-419	6	87
6	Fusion of aroma, FT-IR and UV sensor data based on the Bayesian inference. Application to the discrimination of white grape varieties. *Chemometrics and Intelligent Laboratory Systems*, **2003**, 65, 209-219	3.8	69

List of Publications

5	EPOPLS external parameter orthogonalisation of PLS application to temperature-independent measurement of sugar content of intact fruits. *Chemometrics and Intelligent Laboratory Systems*, **2003**, 66, 191-204	3.8	182
4	Resample and combine: an approach to improving uncertainty representation in evidential pattern classification. *Information Fusion*, **2003**, 4, 75-85	16.7	19
3	Pattern analysis techniques to process fermentation curves: application to discrimination of enological alcoholic fermentations. *Biotechnology and Bioengineering*, **2002**, 79, 804-15	4.9	21
2	Intelligent simulation of plant operation in the wine industry. *Food Control*, **1994**, 5, 91-95	6.2	8
1	Assessing the potential of a handheld visible-near infrared microspectrometer for sugar beet phenotyping. *Journal of Near Infrared Spectroscopy*,09670335221083410834	1.5	