Herve Di Benedetto

List of Publications by Year
in descending order

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136 papers	4,234 citations	116194 36 h-index	145109 60 g-index

140 all docs	140 docs citations	140 times ranked	1500 citing authors

#	Article	IF	Citations
1	Evaluation of the effect of the loading frequency on WÃ¶hlerâ€™s curve parameters of a high modulus asphalt concrete (HMAC). Road Materials and Pavement Design, 2022, 23, 2151-2166.	2.0	5
2	Influence of Linear Viscoelastic Behaviour of Pavement Layers Interface for Heavy Weight Deflectometer Test. RILEM Bookseries, 2022, , 1087-1094.	0.2	0
3	Validation of the Time-Temperature Superposition Principle (TTSP) in the Non-linear Domain for Bituminous Mixtures with Reclaimed Asphalt Pavement (40% RAP). RILEM Bookseries, 2022, , 1925-1931.	0.2	1
4	Effects of Water Saturation and Freeze-Thaw Cycles on Fatigue Behavior of Bituminous Mixtures. RILEM Bookseries, 2022, , 671-677.	0.2	0
5	Properties at Low Temperatures of Asphalt Mixes Containing High Content of Multi-recycled RAP. Journal of Testing and Evaluation, 2022, 50, 20210209.	0.4	1
6	Diffusion Phenomenon between Two Different Bitumens from Mechanical Analysis. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	0
7	Tension Behavior of Bituminous Mixture Samples Reinforced by Fiberglass Geogrids in Different Directions. Lecture Notes in Civil Engineering, 2022, , 521-531.	0.3	0
8	Linear viscoelastic behaviours of bituminous mixtures and fiberglass geogrids interfaces. Geotextiles and Geomembranes, 2022, 50, 961-969.	2.3	1
9	Tridimensional linear viscoelastic properties of bituminous mixtures produced with crumb rubber added by dry process. Road Materials and Pavement Design, 2021, 22, 2086-2096.	2.0	6
10	Behaviour of binder blends: experimental results and modelling from LVE properties of pure binder, RAP binder and rejuvenator. Road Materials and Pavement Design, 2021, 22, S197-S213.	2.0	6
11	Visco-Elasto-Plastic Characterization in the Small Strain Domain of Cement Bitumenâ€“Treated Materials Produced at Low Temperatures. Journal of Materials in Civil Engineering, 2021, 33, 04021039.	1.3	2
12	Effect of timeâ€“temperature, strain level and cyclic loading on the complex Poissonâ€™s ratio of asphalt mixtures. Construction and Building Materials, 2021, 294, 123564.	3.2	14
13	Crack propagation analysis in bituminous mixtures reinforced by different types of geogrids using digital image correlation. Construction and Building Materials, 2021, 303, 124522.	3.2	8
14	Thermo-rheological modelling of cement-bitumen treated materials in the small strain domain. Transportation Geotechnics, 2021, 31, 100647.	2.0	5
15	Influence of Air Void Content and Loading Frequency on Fatigue Test Results of Bituminous Mixtures. Journal of Transportation Engineering Part B: Pavements, 2021, 147, 04021059.	0.8	1
16	Linear viscoelastic (LVE) properties of asphalt mixtures with different glass aggregates and hydrated lime content. International Journal of Pavement Engineering, 2020, 21, 1170-1179.	2.2	13
17	Influence of hydrated lime on linear viscoelastic properties of bituminous mastics. Mechanics of Time-Dependent Materials, 2020, 24, 25-40.	2.3	7
18	Fatigue behaviour of dry or partially saturated hot mix asphalt (HMA). Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1100-1114.	1.7	2

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19	Fatigue and Thermal Cracking of Hot and Warm Bituminous Mixtures with Different RAP Contents. Sustainability, 2020, 12, 9812.	1.6	3
20	Linear viscoelastic behavior of asphalt mixes from dynamic frequency response functions. International Journal for Numerical and Analytical Methods in Geomechanics, 2020, 44, 1019-1031.	1.7	8
21	Influence of Crumb Rubber Added by Dry Process on Linear Viscoelastic Properties and Tensile Strength of Bituminous Mixtures. Lecture Notes in Civil Engineering, 2020, , 174-182.	0.3	2
22	Anisotropic Behavior of Bituminous Mixtures in Road Pavement Structures. Journal of Testing and Evaluation, 2020, 48, 20180828.	0.4	3
23	Comparison of the moisture damage of bituminous binder coupled with glass and limestone substrate using pull-off test. Canadian Journal of Civil Engineering, 2019, 46, 188-194.	0.7	4
24	Dynamic testing of asphalt mixes. E3S Web of Conferences, 2019, 92, 04004.	0.2	1
25	Link between different bottom-up fatigueâ€™s law coefficients of mechanical-empirical pavement design software. Construction and Building Materials, 2019, 216, 552-563.	3.2	10
26	Influence of loading amplitude on viscoelastic properties of bitumen, mastic and bituminous mixtures. Road Materials and Pavement Design, 2019, 20, S780-S796.	2.0	12
27	Precision of modal analysis to characterise the complex modulus of asphalt concrete. Road Materials and Pavement Design, 2019, 20, S217-S232.	2.0	4
28	Reversible phenomena and fatigue damage during cyclic loading and rest periods on bitumen. International Journal of Fatigue, 2019, 124, 303-314.	2.8	30
29	Numerical simulation of falling/heavy weight deflectometer test considering linear viscoelastic behaviour in bituminous layers and inertia effects. Road Materials and Pavement Design, 2019, 20, S64-S78.	2.0	11
30	3D Linear viscoelastic behaviour of bituminous mixtures containing high content of multi-recycled RAP. Road Materials and Pavement Design, 2019, 20, 1709-1721.	2.0	15
31	Comparison of different blending combinations of virgin and RAP-extracted binder: Rheological simulations and statistical analysis. Construction and Building Materials, 2019, 197, 454-463.	3.2	15
32	Nonlinearity of bituminous materials for small amplitude cyclic loadings. Road Materials and Pavement Design, 2019, 20, 1571-1585.	2.0	13
33	Modifying Surface Properties of Model and Pavement Aggregates with Silanes. RILEM Bookseries, 2019, , 90-95.	0.2	0
34	Recovery of asphalt mixture stiffness during fatigue loading rest periods. Construction and Building Materials, 2018, 158, 591-600.	3.2	24
35	Nonlinearity of bituminous mixtures. Mechanics of Time-Dependent Materials, 2018, 22, 29-49.	2.3	21
36	Characterization of Asphalt Mixes Behaviour from Dynamic Tests and Comparison with Conventional Cyclic Tensionâ€“Compression Tests. Applied Sciences (Switzerland), 2018, 8, 2117.	1.3	8

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37	Three-Dimensional Linear Viscoelastic Properties of Two Bituminous Mixtures Made with the Same Binder. Journal of Materials in Civil Engineering, 2018, 30, .	1.3	9
38	Linear Viscoelastic Behaviour of Geogrids Interface within Bituminous Mixtures. KSCE Journal of Civil Engineering, 2018, 22, 2082-2088.	0.9	8
39	Effect of hydrated lime on linear viscoelastic properties of asphalt mixtures with glass aggregates subjected to freeze-thaw cycles. Construction and Building Materials, 2018, 184, 58-67.	3.2	16
40	Multi Modal Dynamic Linear Viscoelastic Back Analysis for Asphalt Mixes. Journal of Nondestructive Evaluation, 2018, 37, 1.	1.1	7
41	Comparison of the 3-dim linear viscoelastic behavior of asphalt mixes determined with tension-compression and dynamic tests. Construction and Building Materials, 2018, 174, 529-536.	3.2	23
42	Experimental Investigation of the Mechanical Behaviour of Interfaces Between Pavement Layers. , 2018, , 344-352.		3
43	Degradation of hot mix asphalt samples subjected to freeze-thaw cycles and partially saturated with water or brine. Road Materials and Pavement Design, 2017, 18, 849-864.	2.0	23
44	Complex modulus and fatigue resistance of bituminous mixtures containing hydrated lime. Construction and Building Materials, 2017, 139, 24-33.	3.2	22
45	Degradation of asphalt mixtures with glass aggregates subjected to freeze-thaw cycles. Cold Regions Science and Technology, 2017, 141, 8-15.	1.6	29
46	Application of the theory of viscoelasticity to evaluate the resilient modulus test in asphalt mixes. Construction and Building Materials, 2017, 149, 648-658.	3.2	27
47	Softening and local self-heating of bituminous mixtures during cyclic loading. Road Materials and Pavement Design, 2017, 18, 164-177.	2.0	14
48	Thermomechanical Coupling in Bituminous Mixtures Considered as Bonded Granular Media. , 2017, , .		0
49	Quantification of different effects occurring during fatigue tests on bituminous mixtures. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 2169-2182.	1.7	11
50	Complex modulus and fatigue performances of bituminous mixtures with reclaimed asphalt pavement and a recycling agent of vegetable origin. Road Materials and Pavement Design, 2017, 18, 315-330.	2.0	31
51	3D complex modulus tests on bituminous mixture with sinusoidal loadings in tension and/or compression. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	13
52	Influence of transient effects for analysis of complex modulus tests on bituminous mixtures. Road Materials and Pavement Design, 2016, 17, 271-289.	2.0	25
53	Anisotropy of bituminous mixture in the linear viscoelastic domain. Mechanics of Time-Dependent Materials, 2016, 20, 281-297.	2.3	22
54	Relations between Linear ViscoElastic Behaviour of Bituminous Mixtures Containing Reclaimed Asphalt Pavement and Colloidal Structure of Corresponding Binder Blends. Procedia Engineering, 2016, 143, 138-145.	1.2	8

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55	Effect of colloidal structure of bituminous binder blends on linear viscoelastic behaviour of mixtures containing Reclaimed Asphalt Pavement. Materials and Design, 2016, 111, 126-139.	3.3	51
56	Use of a bituminous mixture layer in high-speed line trackbeds. Construction and Building Materials, 2016, 125, 398-407.	3.2	33
57	Prediction of LVE Behavior of Mixtures Containing RAP from Properties of Base Constituents. Transportation Research Procedia, 2016, 14, 3552-3561.	0.8	5
58	3D Analysis and Modelling of Thermal Stress Restrained Specimen Test (TSRST) on Asphalt Mixes with RAP and Roofing Shingles. Construction and Building Materials, 2016, 120, 393-402.	3.2	21
59	3Dim experimental investigation of linear viscoelastic properties of bituminous mixtures. Materials and Structures/Materiaux Et Constructions, 2016, 49, 4813-4829.	1.3	48
60	Deterioration of HMA Partially Saturated with Water or Brine Subjected to Freeze-Thaw Cycles. RILEM Bookseries, 2016, , 705-717.	0.2	3
61	Crack propagation characterisation of bituminous mixtures using a four-point bending notched specimen test. Road Materials and Pavement Design, 2016, 17, 70-86.	2.0	13
62	Visco-Plastic Behavior of Bituminous Mixtures: Experiments and Modeling. RILEM Bookseries, 2016, , 47-52.	0.2	1
63	Viscoelastic Behaviour Characterization of a Gap-graded Asphalt Mixture with SBS Polymer Modified Bitumen. Materials Research, 2015, 18, 373-381.	0.6	21
64	Comparison of rheological parameters of asphalt binders obtained from bending beam rheometer and dynamic shear rheometer at low temperatures. Road Materials and Pavement Design, 2015, 16, 211-227.	2.0	21
65	Contraction and expansion of partially saturated hot mix asphalt samples exposed to freezeâ€“thaw cycles. Road Materials and Pavement Design, 2015, 16, 277-299.	2.0	29
66	Effect of Fatigue Cyclic Loading on the Linear Viscoelastic Properties of Bituminous Mixtures. Journal of Materials in Civil Engineering, 2015, 27, .	1.3	16
67	Reclaimed asphalt pavement and additivesâ€™ influence on 3D linear behaviour of warm mix asphalts. Road Materials and Pavement Design, 2015, 16, 569-591.	2.0	28
68	Complex modulus and complex Poissonâ€™s ratio from cyclic and dynamic modal testing of asphalt concrete. Construction and Building Materials, 2015, 88, 20-31.	3.2	59
69	Analysis and modeling of 3D complex modulus tests on hot and warm bituminous mixtures. Mechanics of Time-Dependent Materials, 2015, 19, 167-186.	2.3	17
70	Tridimensional linear viscoelastic behavior of bituminous materials. , 2015, , 59-95.		0
71	Cyclic triaxial tests on bituminous mixtures. Road Materials and Pavement Design, 2015, 16, 46-69.	2.0	11
72	Linear and nonlinear viscoelastic behaviour of bituminous mixtures. Materials and Structures/Materiaux Et Constructions, 2015, 48, 2339-2351.	1.3	47

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73	Ability of the classical fatigue criterion to be associated with macro-crack growth. Materials and Structures/Materiaux Et Constructions, 2015, 48, 2383-2395.	1.3	13
74	Comparing Linear Viscoelastic Properties of Asphalt Concrete Measured by Laboratory Seismic and Tensionâ€“Compression Tests. Journal of Nondestructive Evaluation, 2014, 33, 571-582.	1.1	43
75	Statistical Analysis of Influence of Mix Design Parameters on Mechanical Properties of Mixes with Reclaimed Asphalt Pavement. Transportation Research Record, 2014, 2445, 29-38.	1.0	6
76	Linear Viscoelastic Domain for Bituminous Mixtures. , 2014, , .		1
77	Elastoplastic model with loading memory surfaces (LMS) for monotonic and cyclic behaviour of geomaterials. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1477-1502.	1.7	9
78	New method to obtain viscoelastic properties of bitumen blends from pure and reclaimed asphalt pavement binder constituents. Road Materials and Pavement Design, 2014, 15, 312-329.	2.0	57
79	Behaviour of asphalt mixtures containing reclaimed asphalt pavement and asphalt shingle. Road Materials and Pavement Design, 2014, 15, 330-347.	2.0	77
80	Calculation of viscous energy dissipation in asphalt pavements. Baltic Journal of Road and Bridge Engineering, 2014, 9, 123-130.	0.4	5
81	Validation of the timeâ€“temperature superposition principle for crack propagation in bituminous mixtures. Materials and Structures/Materiaux Et Constructions, 2013, 46, 1075-1087.	1.3	44
82	Modelling of permanent strain of asphalt concrete using the ESSO model. Road Materials and Pavement Design, 2013, 14, 864-887.	2.0	1
83	Thermomechanical characterization of asphalt mixtures modified with high contents of asphalt shingle modifier (ASMÂ®) and reclaimed asphalt pavement (RAP). Materials and Structures/Materiaux Et Constructions, 2013, 46, 1747-1763.	1.3	33
84	Analysis of Fatigue Test for Bituminous Mixtures. Journal of Materials in Civil Engineering, 2013, 25, 701-710.	1.3	55
85	Modelling the rheological properties of bituminous binders using the 2S2P1D Model. Construction and Building Materials, 2013, 38, 395-406.	3.2	110
86	Time Temperature Superposition Principle Validation for Bituminous Mixes in the Linear and Nonlinear Domains. Journal of Materials in Civil Engineering, 2013, 25, 1181-1188.	1.3	72
87	Mechanical Testing of Bituminous Mixtures. RILEM State-of-the-Art Reports, 2013, , 143-256.	0.3	11
88	Viscous Energy Dissipation in Asphalt Pavement Structures and Implication for Vehicle Fuel Consumption. Journal of Materials in Civil Engineering, 2012, 24, 568-576.	1.3	58
89	Determination of bituminous mixtures linear properties using ultrasonic wave propagation. Construction and Building Materials, 2012, 36, 638-647.	3.2	63
90	Determination of thermal properties of asphalt mixtures as another output from cyclic tension-compression test. Road Materials and Pavement Design, 2012, 13, 85-103.	2.0	68

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91	Modeling of viscous bituminous wearing course materials on orthotropic steel deck. Materials and Structures/Materiaux Et Constructions, 2012, 45, 1115-1125.	1.3	52
92	Creep tests on bituminous mixtures and modelling. Road Materials and Pavement Design, 2012, 13, 832-849.	2.0	12
93	New fatigue test on bituminous binders: Experimental results and modeling. Construction and Building Materials, 2012, 37, 197-208.	3.2	29
94	Effect of Vehicle Speed on the Millau Viaduct Response. Journal of Testing and Evaluation, 2012, 40, 20120127.	0.4	6
95	Correspondances entre les coefficients des modÃ¨les de fatigue dans les mÃ©thodes mÃ©canistiques-empiriques de dimensionnement de chaussÃ©es souples. Canadian Journal of Civil Engineering, 2011, 38, 1287-1299.	0.7	4
96	Nonlinearity, Heating, Fatigue and Thixotropy during Cyclic Loading of Asphalt Mixtures. Road Materials and Pavement Design, 2011, 12, 129-158.	2.0	191
97	Rutting of bituminous mixtures: wheel tracking tests campaign analysis. Materials and Structures/Materiaux Et Constructions, 2011, 44, 969-986.	1.3	52
98	French wheel tracking round robin test on a polymer modified bitumen mixture. Materials and Structures/Materiaux Et Constructions, 2011, 44, 1031-1046.	1.3	29
99	Approximation of Linear Viscoelastic Model in the 3 Dimensional Case with Mechanical Analogues of Finite Size. Road Materials and Pavement Design, 2011, 12, 897-930.	2.0	37
100	Approximation of Linear Viscoelastic Model in the 3 Dimensional Case with Mechanical Analogues of Finite Size. Road Materials and Pavement Design, 2011, 12, 897-930.	2.0	26
101	Linear Viscoelastic Behaviour and Anisotropy of Bituminous Mixture Compacted with a French Wheel Compactor. , 2010, , .		5
102	Numerical simulation of the five-point bending test designed to study bituminous wearing courses on orthotropic steel bridge. Materials and Structures/Materiaux Et Constructions, 2010, 43, 319-330.	1.3	30
103	From the Behavior of Constituent Materials to the Calculation and Design of Orthotropic Bridge Structures. Road Materials and Pavement Design, 2010, 11, 111-144.	2.0	71
104	Effects of Particle Characteristics on the Viscous Properties of Granular Materials in Shear. Soils and Foundations, 2009, 49, 25-49.	1.3	23
105	Time-temperature superposition principle for bituminous mixtures. European Journal of Environmental and Civil Engineering, 2009, 13, 1095-1107.	1.0	71
106	Time-Dependent Behaviour and Static Liquefaction Phenomenon of Sand. Geotechnical and Geological Engineering, 2009, 27, 181-191.	0.8	7
107	Stiffness of Bituminous Mixtures Using Ultrasonic Wave Propagation. Road Materials and Pavement Design, 2009, 10, 789-814.	2.0	57
108	Linear Viscoelastic Properties of Bituminous Materials Including New Products Made with Ultrafine Particles. Road Materials and Pavement Design, 2009, 10, 7-38.	2.0	62

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109	Time-temperature superposition principle for bituminous mixtures. Revue EuropÃ©enne De GÃ©nie Civil, 2009, 13, 1095-1107.	0.0	7
110	Stiffness of Bituminous Mixtures Using Ultrasonic Wave Propagation. Road Materials and Pavement Design, 2009, 10, 789-814.	2.0	3
111	Assessment of Existing Micro-mechanical Models for Asphalt Mastics Considering Viscoelastic Effects. Road Materials and Pavement Design, 2008, 9, 31-57.	2.0	81
112	Effect of Ultrafine Particles on Linear Viscoelastic Properties of Mastics and Asphalt Concretes. Transportation Research Record, 2008, 2051, 41-48.	1.0	29
113	Modelling and Simulation of Rate-Dependent Stress-Strain Behaviour of Granular Materials in Shear. Soils and Foundations, 2008, 48, 175-194.	1.3	30
114	Various Viscosity Types of Geomaterials in Shear and Their Mathematical Expression. Soils and Foundations, 2008, 48, 41-60.	1.3	93
115	Modelling of Ageing Effects on the Elasto-Viscoplastic Behaviour of Geomaterial. Soils and Foundations, 2008, 48, 155-174.	1.3	25
116	Assessment of Existing Micro-mechanical Models for Asphalt Mastics Considering Viscoelastic Effects. Road Materials and Pavement Design, 2008, 9, 31-57.	2.0	6
117	Three-dimensional Thermo-viscoplastic Behaviour of Bituminous Materials: The DBN Model. Road Materials and Pavement Design, 2007, 8, 285-315.	2.0	39
118	Three-Dimensional Linear Behavior of Bituminous Materials: Experiments and Modeling. International Journal of Geomechanics, 2007, 7, 149-157.	1.3	161
119	Viscous behaviour of dry sand. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 1631-1658.	1.7	24
120	Three-dimensional Thermo-viscoplastic Behaviour of Bituminous Materials. The DBN Model. Road Materials and Pavement Design, 2007, 8, 285-315.	2.0	37
121	Effect of Binder Characteristics on Fatigue of Asphalt Pavement Using an Intrinsic Damage Approach. Road Materials and Pavement Design, 2005, 6, 147-174.	2.0	58
122	Linear viscoelastic behaviour of bituminous materials: From binders to mixes. Road Materials and Pavement Design, 2004, 5, 163-202.	2.0	248
123	Influence of Asphalt Mixture Stiffness on Fatigue Failure. Journal of Materials in Civil Engineering, 2004, 16, 516-525.	1.3	64
124	Thermomechanical and Mechanical Behaviour of Asphalt Mixtures at Cold Temperature. Road Materials and Pavement Design, 2004, 5, 45-72.	2.0	5
125	Linear Viscoelastic Properties of Bituminous Binders and Mixtures at Low and Intermediate Temperatures. Road Materials and Pavement Design, 2003, 4, 77-107.	2.0	63
126	General â€œ2S2P1Dâ€•Model and Relation Between the Linear Viscoelastic Behaviours of Bituminous Binders and Mixes. Road Materials and Pavement Design, 2003, 4, 185-224.	2.0	185

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127	Ã‰valuation de la rÃ©sistance Ã la fatigue des enrobÃ©s bitumineux fondÃ©e sur l'Ã©volution de l'endommagement du matÃ©riau en cours d'essai : aspects fondamentaux et application Ã l'enrobÃ© Ã matrice de pierre. Canadian Journal of Civil Engineering, 2003, 30, 902-913.	0.7	19
128	General 2S2P1D Model and Relation Between the Linear Viscoelastic Behaviours of Bituminous Binders and Mixes. Road Materials and Pavement Design, 2003, 4, 185-224.	2.0	151
129	Time-Dependent Shear Deformation Characteristics of Sand and their Constitutive Modelling. Soils and Foundations, 2002, 42, 1-22.	1.3	151
130	Time-Dependent Shear Deformation Characteristics of Geomaterials and their Simulation. Soils and Foundations, 2002, 42, 103-129.	1.3	180
131	Thermo-viscoplastic law for bituminous mixes. Road Materials and Pavement Design, 2001, 2, 71-95.	2.0	36
132	Small Strain Behavior of Geomaterials: Modelling of Strain Rate Effects. Soils and Foundations, 1997, 37, 127-138.	1.3	51
133	Comportement mÃ©canique des enrobÃ©s bitumineux et modÃ©lisation de la contrainte maximale. Materials and Structures/Materiaux Et Constructions, 1994, 27, 539-547.	1.3	12
134	Effect of Binder Characteristics on Fatigue of Asphalt Pavement Using an Intrinsic Damage Approach. , 0, .		4
135	Rheological properties, 2S2P1D modelling and SHStS transformation of 12 Brazilian bitumens and mixtures. Road Materials and Pavement Design, 0, , 1-18.	2.0	5
136	Bituminous Interlayers Thermomechanical Behaviour under Small Shear Strain Loading Cycles with 2T3C Apparatus: Hollow Cylinder and Digital Image Correlation. , 0, , .		2