Hubert Labelle

List of Publications by Year in descending order

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30070 10,719 256 54 citations h-index papers

90 g-index 262 262 262 4721 docs citations times ranked citing authors all docs

45317

#	Article	lF	Citations
1	Analysis of the Sagittal Balance of the Spine and Pelvis Using Shape and Orientation Parameters. Journal of Spinal Disorders and Techniques, 2005, 18, 40-47.	1.9	491
2	Comparative Results Between Conventional and Computer-Assisted Pedicle Screw Installation in the Thoracic, Lumbar, and Sacral Spine. Spine, 2000, 25, 606-614.	2.0	381
3	Sagittal Alignment of the Spine and Pelvis During Growth. Spine, 2004, 29, 1642-1647.	2.0	350
4	Spondylolisthesis, Pelvic Incidence, and Spinopelvic Balance. Spine, 2004, 29, 2049-2054.	2.0	345
5	Sagittal spinopelvic balance in normal children and adolescents. European Spine Journal, 2007, 16, 227-234.	2.2	300
6	The Importance of Spino-Pelvic Balance in L5–S1 Developmental Spondylolisthesis. Spine, 2005, 30, S27-S34.	2.0	230
7	Relations Between Standing Stability and Body Posture Parameters in Adolescent Idiopathic Scoliosis. Spine, 2002, 27, 1911-1917.	2.0	219
8	Spino-pelvic sagittal balance of spondylolisthesis: a review and classification. European Spine Journal, 2011, 20, 641-646.	2.2	218
9	Sagittal Plane Analysis of the Spine and Pelvis in Adolescent Idiopathic Scoliosis According to the Coronal Curve Type. Spine, 2003, 28, 1404-1409.	2.0	192
10	Sagittal Alignment of the Spine and Pelvis in the Presence of L5–S1 Isthmic Lysis and Low-Grade Spondylolisthesis. Spine, 2006, 31, 2484-2490.	2.0	187
11	Classification of High-Grade Spondylolistheses Based on Pelvic Version and Spine Balance. Spine, 2007, 32, 2208-2213.	2.0	177
12	3D/2D registration and segmentation of scoliotic vertebrae using statistical models. Computerized Medical Imaging and Graphics, 2003, 27, 321-337.	5.8	147
13	Melatonin Signaling Dysfunction in Adolescent Idiopathic Scoliosis. Spine, 2004, 29, 1772-1781.	2.0	146
14	Spinal Cord Injury in the Pediatric Population: A Systematic Review of the Literature. Journal of Neurotrauma, 2011, 28, 1515-1524.	3.4	142
15	Computer-Assisted Pedicle Screw Fixation- A Feasibility Study. Spine, 1995, 20, 1208-1212.	2.0	140
16	Spino-pelvic alignment after surgical correction for developmental spondylolisthesis. European Spine Journal, 2008, 17, 1170-1176.	2.2	129
17	Pre- and post-operative sagittal balance in idiopathic scoliosis: a comparison over the ages of two cohorts of 132 adolescents and 52 adults. European Spine Journal, 2013, 22, 203-215.	2.2	121
18	Pediatric sagittal alignment. European Spine Journal, 2011, 20, 586-590.	2.2	111

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19	Morphometric Analysis of Anatomic Scoliotic Specimens. Spine, 2002, 27, 2305-2311.	2.0	97
20	A Hierarchical Statistical Modeling Approach for the Unsupervised 3-D Biplanar Reconstruction of the Scoliotic Spine. IEEE Transactions on Biomedical Engineering, 2005, 52, 2041-2057.	4.2	97
21	Thoracic Pedicle Morphometry in Vertebrae from Scoliotic Spines. Spine, 2004, 29, 239-248.	2.0	96
22	Three-Dimensional Classification of Thoracic Scoliotic Curves. Spine, 2009, 34, 91-99.	2.0	96
23	Clinical methods for quantifying body segment posture: a literature review. Disability and Rehabilitation, 2011, 33, 367-383.	1.8	96
24	Seeing the Spine in 3D. Journal of Pediatric Orthopaedics, 2011, 31, S37-S45.	1.2	96
25	Three-Dimensional Spinal Morphology Can Differentiate Between Progressive and Nonprogressive Patients With Adolescent Idiopathic Scoliosis at the Initial Presentation. Spine, 2014, 39, E601-E606.	2.0	91
26	Three-dimensional Effect of the Boston Brace on the Thoracic Spine and Rib Cage. Spine, 1996, 21, 59-64.	2.0	89
27	Geometric Torsion in Idiopathic Scoliosis. Spine, 2001, 26, 2235-2243.	2.0	86
28	A proposal for a surgical classification of pediatric lumbosacral spondylolisthesis based on current literature. European Spine Journal, 2006, 15, 1425-1435.	2.2	86
29	Postural Model of Sagittal Spino-Pelvic Alignment and Its Relevance for Lumbosacral Developmental Spondylolisthesis. Spine, 2008, 33, 2316-2325.	2.0	85
30	Observer Variation in Assessing Spinal Curvature and Skeletal Development in Adolescent Idiopathic Scoliosis. Spine, 1988, 13, 1371-1377.	2.0	83
31	Variability of spinal instrumentation configurations in adolescent idiopathic scoliosis. European Spine Journal, 2007, 16, 57-64.	2.2	82
32	Global sagittal alignment and health-related quality of life in lumbosacral spondylolisthesis. European Spine Journal, 2013, 22, 849-856.	2.2	82
33	Reliability of trunk shape measurements based on 3-D surface reconstructions. European Spine Journal, 2007, 16, 1882-1891.	2.2	80
34	Screening for adolescent idiopathic scoliosis: an information statement by the scoliosis research society international task force. Scoliosis, 2013, 8, 17.	0.4	76
35	Optimized vertical stereo base radiographic setup for the clinical three-dimensional reconstruction of the human spine. Journal of Biomechanics, 1994, 27, 1023-1035.	2.1	72
36	A versatile 3D reconstruction system of the spine and pelvis for clinical assessment of spinal deformities. Medical and Biological Engineering and Computing, 2007, 45, 591-602.	2.8	71

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37	Geometric Variability of the Scoliotic Spine Using Statistics on Articulated Shape Models. IEEE Transactions on Medical Imaging, 2008, 27, 557-568.	8.9	71
38	Spine Segmentation in Medical Images Using Manifold Embeddings and Higher-Order MRFs. IEEE Transactions on Medical Imaging, 2013, 32, 1227-1238.	8.9	70
39	A Three-Dimensional Radiographic Comparison of Cotrel–Dubousset and Colorado Instrumentations for the Correction of Idiopathic Scoliosis. Spine, 2000, 25, 205.	2.0	69
40	Intra- and inter-observer reliability of determining radiographic sagittal parameters of the spine and pelvis using a manual and a computer-assisted methods. European Spine Journal, 2008, 17, 1373-1379.	2.2	68
41	Correlation Between Immediate In-Brace Correction and Biomechanical Effectiveness of Brace Treatment in Adolescent Idiopathic Scoliosis. Spine, 2010, 35, 1706-1713.	2.0	67
42	A three-dimensional retrospective analysis of the evolution of spinal instrumentation for the correction of adolescent idiopathic scoliosis. European Spine Journal, 2009, 18, 23-37.	2.2	65
43	Comparison of the biomechanical 3D efficiency of different brace designs for the treatment of scoliosis using a finite element model. European Spine Journal, 2010, 19, 1169-1178.	2,2	65
44	Diurnal Variation of Cobb Angle Measurement in Adolescent Idiopathic Scoliosis. Spine, 1993, 18, 1581-1583.	2.0	64
45	A Modified Risser Grading System Predicts the Curve Acceleration Phase of Female Adolescent Idiopathic Scoliosis. Journal of Bone and Joint Surgery - Series A, 2010, 92, 1073-1081.	3.0	63
46	Comparison Between Preoperative and Postoperative Three-dimensional Reconstructions of Idiopathic Scoliosis With the Cotrel-dubousset Procedure. Spine, 1995, 20, 2487-2492.	2.0	61
47	Three-Dimensional Classification of Spinal Deformities Using Fuzzy Clustering. Spine, 2006, 31, 923-930.	2.0	60
48	Scoliosis Correction Objectives in Adolescent Idiopathic Scoliosis. Journal of Pediatric Orthopaedics, 2007, 27, 775-781.	1.2	60
49	Reliability of a quantitative clinical posture assessment tool among persons with idiopathic scoliosis. Physiotherapy, 2012, 98, 64-75.	0.4	60
50	Electromyography of scoliotic patients treated with a brace. Journal of Orthopaedic Research, 2003, 21, 931-936.	2.3	59
51	Validity of a Quantitative Clinical Measurement Tool of Trunk Posture in Idiopathic Scoliosis. Spine, 2010, 35, E988-E994.	2.0	59
52	Three-Dimensional Analysis of Thoracic Apical Sagittal Alignment in Adolescent Idiopathic Scoliosis. Spine, 2009, 34, 792-797.	2.0	58
53	Intraoperative Comparison of Two Instrumentation Techniques for the Correction of Adolescent Idiopathic Scoliosis. Spine, 1999, 24, 2011.	2.0	56
54	Personalized X-Ray 3-D Reconstruction of the Scoliotic Spine From Hybrid Statistical and Image-Based Models. IEEE Transactions on Medical Imaging, 2009, 28, 1422-1435.	8.9	56

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55	Indices of torso asymmetry related to spinal deformity in scoliosis. Clinical Biomechanics, 2002, 17, 559-568.	1.2	54
56	Biomechanical Evaluation of the Boston Brace System for the Treatment of Adolescent Idiopathic Scoliosis. Spine, 2004, 29, 26-32.	2.0	54
57	Reliability and Validity of Adapted French Canadian Version of Scoliosis Research Society Outcomes Questionnaire (SRS-22) in Quebec. Spine, 2009, 34, 623-628.	2.0	54
58	Boston Brace Correction in Idiopathic Scoliosis: A Biomechanical Study. Spine, 2003, 28, 1672-1677.	2.0	53
59	Classification of three-dimensional thoracic deformities in adolescent idiopathic scoliosis from a multivariate analysis. European Spine Journal, 2012, 21, 40-49.	2.2	53
60	Relation between the sagittal pelvic and lumbar spine geometries following surgical correction of adolescent idiopathic scoliosis. European Spine Journal, 2007, 16, 531-536.	2.2	52
61	Fast 3D reconstruction of the spine from biplanar radiographs using a deformable articulated model. Medical Engineering and Physics, 2011, 33, 924-933.	1.7	51
62	Estimation of Spinal Deformity in Scoliosis From Torso Surface Cross Sections. Spine, 2001, 26, 1583-1591.	2.0	50
63	Assessment of Spinal Flexibility in Adolescent Idiopathic Scoliosis. Spine, 2009, 34, 591-597.	2.0	50
64	Automatic inference of articulated spine models in CT images using high-order Markov Random Fields. Medical Image Analysis, 2011, 15, 426-437.	11.6	50
65	New brace design combining CAD/CAM and biomechanical simulation for the treatment of adolescent idiopathic scoliosis. Clinical Biomechanics, 2012, 27, 999-1005.	1.2	50
66	Peroperative Three-Dimensional Correction of Idiopathic Scoliosis With the Cotrel-Dubousset Procedure. Spine, 1995, 20, 1406-1409.	2.0	49
67	Rib Cage-Spine Coupling Patterns Involved in Brace Treatment of Adolescent Idiopathic Scoliosis. Spine, 1997, 22, 629-635.	2.0	49
68	Estrogen crossâ€ŧalk with the melatonin signaling pathway in human osteoblasts derived from adolescent idiopathic scoliosis patients. Journal of Pineal Research, 2008, 45, 383-393.	7.4	49
69	Effectiveness of braces designed using computer-aided design and manufacturing (CAD/CAM) and finite element simulation compared to CAD/CAM only for the conservative treatment of adolescent idiopathic scoliosis: a prospective randomized controlled trial. European Spine Journal, 2016, 25, 3056-3064.	2.2	49
70	Three-dimensional morphology study of surgical adolescent idiopathic scoliosis patient from encoded geometric models. European Spine Journal, 2016, 25, 3104-3113.	2.2	48
71	Variability of Strap Tension in Brace Treatment for Adolescent Idiopathic Scoliosis. Spine, 1999, 24, 349-354.	2.0	46
72	Pre-, Intra-, and Postoperative Three-Dimensional Evaluation of Adolescent Idiopathic Scoliosis. Journal of Spinal Disorders, 2000, 13, 93-101.	1.1	46

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73	Vertebral Wedging Characteristic Changes in Scoliotic Spines. Spine, 2004, 29, E455-E462.	2.0	46
74	Prevalence and Management of Back Pain in Adolescent Idiopathic Scoliosis Patients: A Retrospective Study. Pain Research and Management, 2015, 20, 153-157.	1.8	46
75	Back Pain Prevalence Is Associated With Curve-type and Severity in Adolescents With Idiopathic Scoliosis. Spine, 2017, 42, E914-E919.	2.0	46
76	Virtual prototyping of a brace design for the correction of scoliotic deformities. Medical and Biological Engineering and Computing, 2007, 45, 467-473.	2.8	45
77	A new method to include the gravitational forces in a finite element model of the scoliotic spine. Medical and Biological Engineering and Computing, 2011, 49, 967-977.	2.8	45
78	Biomechanical simulations of scoliotic spine correction due to prone position and anaesthesia prior to surgical instrumentation. Clinical Biomechanics, 2005, 20, 923-931.	1.2	42
79	Articulated Spine Models for 3-D Reconstruction From Partial Radiographic Data. IEEE Transactions on Biomedical Engineering, 2008, 55, 2565-2574.	4.2	41
80	Reliability of the Spinal Deformity Study Group Classification of Lumbosacral Spondylolisthesis. Spine, 2012, 37, E95-E102.	2.0	41
81	Three-Dimensional Spinopelvic Relative Alignment in Adolescent Idiopathic Scoliosis. Spine, 2014, 39, 564-570.	2.0	41
82	Braces Optimized With Computer-Assisted Design and Simulations Are Lighter, More Comfortable, and More Efficient Than Plaster-Cast Braces for the Treatment of Adolescent Idiopathic Scoliosis. Spine Deformity, 2014, 2, 276-284.	1.5	41
83	Idiopathic Scoliosis in Three Dimensions. Spine, 2001, 26, 2719-2726.	2.0	39
84	Reliability and Accuracy Analysis of a New Semiautomatic Radiographic Measurement Software in Adult Scoliosis. Spine, 2011, 36, E780-E790.	2.0	39
85	Principal component analysis of the power developed in the flexion/extension muscles of the hip in able-bodied gait. Medical Engineering and Physics, 2000, 22, 703-710.	1.7	38
86	Reliability and development of a new classification of lumbosacral spondylolisthesis. Scoliosis, 2008, 3, 19.	0.4	38
87	Prediction of anterior scoliotic spinal curve from trunk surface using support vector regression. Engineering Applications of Artificial Intelligence, 2005, 18, 973-983.	8.1	37
88	Implant Distribution in Surgically Instrumented Lenke 1 Adolescent Idiopathic Scoliosis. Spine, 2015, 40, 462-468.	2.0	37
89	Preliminary Evaluation of a Computer-Assisted Tool for the Design and Adjustment of Braces in Idiopathic Scoliosis. Spine, 2007, 32, 835-843.	2.0	36
90	A Biomechanical Study of the Charleston Brace for the Treatment of Scoliosis. Spine, 2010, 35, E940-E947.	2.0	36

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91	Patient Characteristics at the Initial Visit to a Scoliosis Clinic. Spine, 2007, 32, 1349-1354.	2.0	35
92	The Central Hip Vertical Axis. Spine, 2010, 35, E530-E534.	2.0	35
93	Biomechanical comparison of alternative densities of pedicle screws for the treatment of adolescent idiopathic scoliosis. European Spine Journal, 2012, 21, 1082-1090.	2.2	35
94	Influence of Sacral Morphology in Developmental Spondylolisthesis. Spine, 2008, 33, 2185-2191.	2.0	34
95	3D correction of AIS in braces designed using CAD/CAM and FEM: a randomized controlled trial. Scoliosis and Spinal Disorders, 2017, 12, 24.	2.3	34
96	Reconstruction of Laser-scanned 3D Torso Topography and Stereoradiographical Spine and Rib-cage Geometry in Scoliosis. Computer Methods in Biomechanics and Biomedical Engineering, 2001, 4, 59-75.	1.6	33
97	Spine/SRS Spondylolisthesis Summary Statement. Spine, 2005, 30, S3.	2.0	33
98	Relation Between Adolescent Idiopathic Scoliosis and Morphologic Somatotypes. Spine, 1997, 22, 2532-2536.	2.0	32
99	Biomechanical Analysis of 4 Types of Pedicle Screws for Scoliotic Spine Instrumentation. Spine, 2012, 37, E823-E835.	2.0	32
100	Prevalence of low back pain in adolescents with idiopathic scoliosis: a systematic review. Chiropractic & Manual Therapies, 2017, 25, 10.	1.5	32
101	Genetic Algorithm–Neural Network Estimation of Cobb Angle from Torso Asymmetry in Scoliosis. Journal of Biomechanical Engineering, 2002, 124, 496-503.	1.3	31
102	Comparison between constrained and non-constrained Cobb techniques for the assessment of thoracic kyphosis and lumbar lordosis. European Spine Journal, 2007, 16, 1325-1331.	2.2	31
103	Biomechanical Comparison of Force Levels in Spinal Instrumentation Using Monoaxial versus Multi Degree of Freedom Postloading Pedicle Screws. Spine, 2011, 36, E95-E104.	2.0	31
104	Biomechanical modeling of brace treatment of scoliosis: effects of gravitational loads. Medical and Biological Engineering and Computing, 2011, 49, 743-753.	2.8	31
105	Continuous curve registration as an intertrial gait variability reduction technique. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2003, 11, 24-30.	4.9	30
106	Three-Dimensional (3-D) Reconstruction of the Spine From a Single X-Ray Image and Prior Vertebra Models. IEEE Transactions on Biomedical Engineering, 2004, 51, 1628-1639.	4.2	30
107	Quality of life of patients with high-grade spondylolisthesis: minimum 2-year follow-up after surgical and nonsurgical treatments. Spine Journal, 2013, 13, 770-774.	1.3	30
108	3D rod shape changes in adolescent idiopathic scoliosis instrumentation: how much does it impact correction?. European Spine Journal, 2017, 26, 1676-1683.	2.2	30

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109	Three-Dimensional Reconstruction of the Scoliotic Spine and Pelvis From Uncalibrated Biplanar x-Ray Images. Journal of Spinal Disorders and Techniques, 2007, 20, 160-167.	1.9	29
110	Validation and Clinical Relevance of a French-Canadian Version of the Spinal Appearance Questionnaire in Adolescent Patients. Spine, 2011, 36, 746-751.	2.0	29
111	Anaesthetic management of an adolescent for scoliosis surgery with a Fontan circulation. Paediatric Anaesthesia, 2001, 11, 607-610.	1.1	28
112	Evaluation of a transpedicular drill guide for pedicle screw placement in the thoracic spine. European Spine Journal, 2003, 12, 542-547.	2.2	28
113	Automatic Detection of Scoliotic Curves in Posteroanterior Radiographs. IEEE Transactions on Biomedical Engineering, 2010, 57, 1143-1151.	4.2	28
114	Biomechanical evaluation of predictive parameters of progression in adolescent isthmic spondylolisthesis: a computer modeling and simulation study. Scoliosis, 2012, 7, 2.	0.4	28
115	Computer simulation for the optimization of instrumentation strategies in adolescent idiopathic scoliosis. Medical and Biological Engineering and Computing, 2009, 47, 1143-1154.	2.8	27
116	Cell-Based Screening Test for Idiopathic Scoliosis Using Cellular Dielectric Spectroscopy. Spine, 2010, 35, E601-E608.	2.0	27
117	Clinical Significance of Lumbosacral Kyphosis in Adolescent Spondylolisthesis. Spine, 2012, 37, 304-308.	2.0	27
118	MRI signal distribution within the intervertebral disc as a biomarker of adolescent idiopathic scoliosis and spondylolisthesis. BMC Musculoskeletal Disorders, 2012, 13, 239.	1.9	27
119	Prediction of spinal curve progression in Adolescent Idiopathic Scoliosis using Random Forest regression. Computers in Biology and Medicine, 2018, 103, 34-43.	7.0	27
120	Assessment of lumbosacral kyphosis in spondylolisthesis: a computer-assisted reliability study of six measurement techniques. European Spine Journal, 2009, 18, 212-217.	2.2	25
121	Three-dimensional Subclassification of Lenke Type 1 Scoliotic Curves. Journal of Spinal Disorders and Techniques, 2009, 22, 135-143.	1.9	25
122	How does implant distribution affect 3D correction and bone-screw forces in thoracic adolescent idiopathic scoliosis spinal instrumentation?. Clinical Biomechanics, 2016, 39, 25-31.	1.2	25
123	Computerized Assessment of Sagittal Curvatures of the Spine. Journal of Spinal Disorders and Techniques, 2006, 19, 507-512.	1.9	24
124	The pendulum swings back to scoliosis screening: screening policies for early detection and treatment of idiopathic scoliosis - current concepts and recommendations. Scoliosis, 2013, 8, 16.	0.4	23
125	A Predictive Model of Progression for Adolescent Idiopathic Scoliosis Based on 3D Spine Parameters at First Visit. Spine, 2020, 45, 605-611.	2.0	23
126	Three-dimensional Spine Parameters Can Differentiate Between Progressive and Nonprogressive Patients With AIS at the Initial Visit. Journal of Pediatric Orthopaedics, 2013, 33, 618-623.	1.2	22

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127	Normal sagittal parameters of global spinal balance in children and adolescents: a prospective study of 646 asymptomatic subjects. European Spine Journal, 2016, 25, 3650-3657.	2.2	22
128	Spinal shape changes resulting from scoliotic spine surgical instrumentation expressed as intervertebral rotations and centers of rotation. Journal of Biomechanics, 2004, 37, 173-180.	2.1	21
129	Towards a new 3D classification for adolescent idiopathic scoliosis. Spine Deformity, 2020, 8, 387-396.	1.5	21
130	Preoperative and early postoperative three-dimensional changes of the rib cage after posterior instrumentation in adolescent idiopathic scoliosis. European Spine Journal, 2001, 10, 101-106.	2.2	20
131	The Effect of Intraoperative Traction During Posterior Spinal Instrumentation and Fusion for Adolescent Idiopathic Scoliosis. Spine, 2004, 29, 1549-1554.	2.0	20
132	Biomechanical Analysis of Corrective Forces in Spinal Instrumentation for Scoliosis Treatment. Spine, 2012, 37, E1479-E1487.	2.0	20
133	3D registration of MR and X-ray spine images using an articulated model. Computerized Medical Imaging and Graphics, 2012, 36, 410-418.	5.8	20
134	Restoration of normal pelvic balance from surgical reduction in high-grade spondylolisthesis. European Spine Journal, 2019, 28, 2087-2094.	2.2	20
135	Characterizing Pelvis Dynamics in Adolescent With Idiopathic Scoliosis. Spine, 2010, 35, E820-E826.	2.0	19
136	Redefining the Technique for the Radiologic Measurement of Slip in Spondylolisthesis. Spine, 2010, 35, 1401-1405.	2.0	19
137	The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine Journal, 2016, 16, 626-631.	1.3	19
138	Braces Designed Using CAD/CAM Combined or Not With Finite Element Modeling Lead to Effective Treatment and Quality of Life After 2 Years. Spine, 2021, 46, 9-16.	2.0	19
139	Biomechanical modeling and analysis of a direct incremental segmental translation system for the instrumentation of scoliotic deformities. Clinical Biomechanics, 2011, 26, 548-555.	1.2	18
140	Biomechanical loading of the sacrum in adolescent idiopathic scoliosis. Clinical Biomechanics, 2014, 29, 296-303.	1.2	18
141	Evidence of Three-Dimensional Variability in Scoliotic Curves. Clinical Orthopaedics and Related Research, 2003, 412, 139-148.	1.5	17
142	Effects of alternative instrumentation strategies in adolescent idiopathic scoliosis: A biomechanical analysis. Journal of Orthopaedic Research, 2009, 27, 104-113.	2.3	17
143	Interobserver and Intraobserver Variability in the Identification of the Lenke Classification Lumbar Modifier in Adolescent Idiopathic Scoliosis. Journal of Spinal Disorders and Techniques, 2009, 22, 448-455.	1.9	17
144	A Novel Method for the 3-D Reconstruction of Scoliotic Ribs From Frontal and Lateral Radiographs. IEEE Transactions on Biomedical Engineering, 2011, 58, 1135-1146.	4.2	17

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145	Artificial neural networks assessing adolescent idiopathic scoliosis: comparison with Lenke classification. Spine Journal, 2013, 13, 1527-1533.	1.3	17
146	Biomechanical Analysis of Vertebral Derotation Techniques for the Surgical Correction of Thoracic Scoliosis. Spine, 2013, 38, E73-E83.	2.0	17
147	Biomechanical Assessment of Providence Nighttime Brace for the Treatment of Adolescent Idiopathic Scoliosis. Spine Deformity, 2016, 4, 253-260.	1.5	17
148	Trunk imbalance in adolescent idiopathic scoliosis. Spine Journal, 2016, 16, 687-693.	1.3	17
149	Biomechanics of high-grade spondylolisthesis with and without reduction. Medical and Biological Engineering and Computing, 2016, 54, 619-628.	2.8	17
150	Biomechanical effect of pedicle screw distribution in AIS instrumentation using a segmental translation technique: computer modeling and simulation. Scoliosis and Spinal Disorders, 2017, 12, 13.	2.3	17
151	Non invasive classification system of scoliosis curve types using least-squares support vector machines. Artificial Intelligence in Medicine, 2012, 56, 99-107.	6.5	16
152	Inter-rater reliability of the evaluation of muscular chains associated with posture alterations in scoliosis. BMC Musculoskeletal Disorders, 2012, 13, 80.	1.9	16
153	The effectiveness of scoliosis screening programs: methods for systematic review and expert panel recommendations formulation. Scoliosis, 2013, 8, 12.	0.4	16
154	Patient-specific finite element model of the spine and spinal cord to assess the neurological impact of scoliosis correction: preliminary application on two cases with and without intraoperative neurological complications. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 901-910.	1.6	16
155	What Are the Indications for Spinal Fusion Surgery in Scheuermann Kyphosis?. Journal of Pediatric Orthopaedics, 2019, 39, 217-221.	1.2	16
156	Preoperative assessment and evaluation of instrumentation strategies for the treatment of adolescent idiopathic scoliosis: computer simulation and optimization. Scoliosis, 2012, 7, 21.	0.4	15
157	Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine Journal, 2017, 17, 663-670.	1.3	15
158	The classification of scoliosis braces developed by SOSORT with SRS, ISPO, and POSNA and approved by ESPRM. European Spine Journal, 2022, 31, 980-989.	2.2	15
159	Morphologic Discrimination Among Healthy Subjects and Patients With Progressive and Nonprogressive Adolescent Idiopathic Scoliosis. Spine, 1998, 23, 1109-1115.	2.0	14
160	Comparison of Cobb Angles Measured Manually, Calculated from 3-D Spinal Reconstruction, and Estimated from Torso Asymmetry. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 277-281.	1.6	14
161	Computer simulation for the optimization of patient positioning in spinal deformity instrumentation surgery. Medical and Biological Engineering and Computing, 2008, 46, 33-41.	2.8	14
162	Self-Calibration of Biplanar Radiographic Images Through Geometric Spine Shape Descriptors. IEEE Transactions on Biomedical Engineering, 2010, 57, 1663-1675.	4.2	14

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163	Computer algorithms and applications used to assist the evaluation and treatment of adolescent idiopathic scoliosis: a review of published articles 2000–2009. European Spine Journal, 2011, 20, 1058-1068.	2.2	14
164	Multimodal image registration of the scoliotic torso for surgical planning. BMC Medical Imaging, 2013, 13, 1.	2.7	14
165	Differences in Standing and Sitting Postures of Youth with Idiopathic Scoliosis from Quantitative Analysis of Digital Photographs. Physical and Occupational Therapy in Pediatrics, 2013, 33, 313-326.	1.3	14
166	Measurement Properties of the Scoliosis Research Society Outcomes Questionnaire in Adolescent Patients With Spondylolisthesis. Spine, 2017, 42, 1316-1321.	2.0	14
167	Biomechanical Comparison of the Load-Sharing Capacity of High and Low Implant Density Constructs With Three Types of Pedicle Screws for the Instrumentation of Adolescent Idiopathic Scoliosis. Spine Deformity, 2019, 7, 2-10.	1.5	14
168	Assessment of Sacral Doming in Lumbosacral Spondylolisthesis. Spine, 2007, 32, 1888-1895.	2.0	13
169	A Variability Study of Computerized Sagittal Sacral Radiologic Measures. Spine, 2010, 35, 71-75.	2.0	13
170	Multilevel Analysis of Trunk Surface Measurements for Noninvasive Assessment of Scoliosis Deformities. Spine, 2012, 37, E1045-E1053.	2.0	13
171	Scoliosis Follow-Up Using Noninvasive Trunk Surface Acquisition. IEEE Transactions on Biomedical Engineering, 2013, 60, 2262-2270.	4.2	13
172	Development of a Detailed Volumetric Finite Element Model of the Spine to Simulate Surgical Correction of Spinal Deformities. BioMed Research International, 2013, 2013, 1-6.	1.9	13
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