

## DAFTAR PUSTAKA

- A. Agrawal, 2014. Pedicle Screw Nut Loosening: Potentially Avoidable Causes of Spine Instrumentation Failure. *Asian Spine Journal* 8(2), 224-226
- A. Boccaccio, P. Vena, D. Gastaldi, G. Franzoso, R. Pietrabissa, C. Pappalettere, 2008. *Finite element analysis of cancellous bone failure in the vertebral body of healthy and osteoporotic subjects*. Proc Inst Mech Eng H. 222:1023-1036
- A. Dimeglio, 1993. *Growth of the spine before age 5 years*. J Pediatr Orthop, B;1:102.
- A. Mehboob, H. Mehboob, S.H. Chang, F. Tarlochan, 2017. *Effect of composite intramedullary nails (IM) on healing of long bone fractures by means of reamed and unreamed methods*. Compos Struct, p;167:76–87.
- A.A. White, M.M. Panjabi, 1990. *Clinical Biomechanics of the Spine*. 2nd ed, Philadelphia,. PA: J. B. Lippincott, 30–342
- A.B. Schultz, D.N. Warwick, M.H. Berkson, A.L.Nachemson, 1979. *Mechanical properties of human lumbar spine motion segments*. J. Biomech. Eng, 101, 46–52.
- A.C. Parera, L.S. Sengkey, J. Gessal, 2016. Deteksi dini skoliosis menggunakan skoliometer pada siswa kelas VI SD di Kecamatan Mapanget Manado. Jurnal e-Clinic (eCl), Vol 4, 98-103.
- A.K. Roth, A.J. Van der Veen, R. Bogie, P.C. Willems, B. Van Rietbergen, L. Van Rhijn, 2015. *Range of motion in segmental versus nonsegmental ultrahigh molecular weight polyethylene sublaminar wire growth guidance type constructs for early-onset scoliosis correction*. Spine 40, E1212–1218.
- A.O. Gotfryd, O. Avanzi, 2013. *Randomized Clinical Study on Surgical Techniques With Different Pedicle Screw Densities in the Treatment of Adolescent Idiopathic Scoliosis Types*, 25 - 30
- Abdulsalam A. Al-Tamim, Peach Chris, Fernandes Rui Paulo, Cseke Akos, Bartolo Paulo. 2017. *Topology Optimization to reduce the stress shielding effect for orthopedic applications*. Procedia CIRP, 65, 202 – 206
- B.A. Williams, H. Matsumoto, D.J. McCalla, 2014. *Development and initial validation of the Classification of Early-Onset Scoliosis (CEOS)*. J Bone Joint Surg Am, 96:1359e67
- B.B. Abshire, R.F. McLain, A. Valdevit, H.E. Kambic, 2001. *Characteristics of pullout failure in conical and cylindrical pedicle screws after full insertion and back-out*. The Spine Journal, Vol 1, 408–414.

- B.D. Elder, S.L. Holmes, C. Goodwin, T.A. Kosztowski, I.A. Lina, J.E. Locke, T.F. Witham, 2015. *The biomechanics of pedicle screw augmentation with cement*. *Spine J*, 15:32–45
- B.I. Martin, G.M. Franklin, R.A. Deyo, T.M. Wickizer, J.D. Lurie, S.K. Mirza, 2014. *How do coverage policies influence practice patterns, safety, and cost of initial lumbar fusion surgery? A population-based comparison of workers' compensation systems*. *Spine J*, 14 (7):1237–46.
- B.Y. Ucar, 2014. *A new corrective technique for adolescent idiopathic scoliosis (Ucar's convex rod rotation)*. *Journal of Cervical Vertebrae Junction and Spine*, Vol 5(3), 114-117
- Benzel C. Edward, 2015. *Biomechanics of Spine Stabilization 3<sup>rd</sup> edition* ,p : 1-240
- Charlotte Voutat, Jiri Nohava, Jasmin Wandel, Philippe Zysset, 2019. *The Dynamic Friction Coefficient of the Wet Bone-Implant Interface: Influence of Load, Speed, Material and Surface Finish*, *Biotribology* 17, 64 – 74.
- C. Casstevens, M.D Chris, T. Le, J. Wyrick, 2012. *Management of extra-articular fractures of the distal tibia : intramedullary nailing versus plate fixation*. *JAAOS-J Am Acad Orthopaedic Surgeons*, 20(11) : 675–83.
- C.H. Turner, 2002. Biomechanics of bone: *determinants of skeletal fragility and bone quality*. *Osteoporos Int.*;13:97.
- C.K. Chao, C.C Hsu, J.L.Wang, J.Lin, 2008. *Increasing bending strength and pull-out strength in conical pedicle screws: biomechanical tests and finite element analysis*. *J Spinal Disord Tech*, 21:130–8 .
- C.L. Liu, H.C. Kao, S.T Wang, W.H. Lo, C.K. Cheng, 1998. *Biomechanical evaluation of a central rod system in the treatment of scoliosis*. *Clinical Biomechanics*, Vol 13, 548-559.
- C.S. Chen, W.J. Chen, C.K. Cheng, S.H. Jao Eric, S.C. Chueh, C.C. Wang, 2005. *Failure analysis of broken pedicle screws on spinal instrumentation*. *Medical Engineering & Physics*, Vol 27, 487–496.
- Changning Sun, Enchun Dong, Yucong Tian, Jianfeng Kang, Jibao Zheng, Qing Zhang, Lei Wang, Chaozong Liu c, Ling Wang, Dichen Li, 2024, Functional biomimetic design of 3D printed polyether-ether-ketone flexible chest wall reconstruction implants for restoration of the respiration, *Materials & Design* 237, 112574.
- Clien Julien, Franck Le Nav\_eaux, Driscoll Mark, Mac-Thiong Jean-Marc, Labelle Hubert, Parent Stefan, Shah A. Suken, Baron S. Lonner, Newton O. Peter, Serhan Hassan, 2019. *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*. *Journal Spine Deformity* 7.

- D.L. Skaggs, T. Guillaume, R. El-Hawary, 2015. *Early onset scoliosis consensus statement*. *SRS Growing Spine Committee. Spine Deform*, 3:107.
- D.S. Hanson, K.H. Bridwell, J.M. Rhee, L.G. Lenke, 2002. *Correlation of pelvic incidence with low- and high-grade isthmic spondylolisthesis*. *Spine* 27, 2026– 2029.
- Duff John, Hussain M. Mir, Klocke Noelle, Harris A.Jonathan, Soumya S. Yandamuri, Lukas Bobinski, Roy T. Daniel, Brandon S. Bucklen, 2018. *Does pedicle screw fixation of the subaxial cervical spine provide adequate stabilization in a multilevel vertebral body fracture model? An in vitro biomechanical study*, 72-78
- E. Goens, 1931. *Über die Bestimmung des Elastizitätsmodulus von Stäben mit Hilfe von Biegungsschwingungen*. *Annalen der Physik*, Band 11:649–678.
- E. Lukina, M. Kollerov, J. Meswania, A. Khon, P. Panin, G.W. Blunn, 2017. *Fretting corrosion behavior of nitinol spinal rods in conjunction with titanium pedicle screws*. *Materials Science and Engineering C*, Vol 72, 601-61.
- F.H. Cheng, S.L. Shih, W.K. Chou, C.L. Liu, W.H. Sung, C.S. Chen, 2010. *Finite element analysis of the scoliotic spine under different loading conditions*. *Biomed Mater Eng*, 20:251
- G. Davies, L. Reid, 1971. *Effect of scoliosis on growth of alveoli and pulmonary arteries and on right ventricle*. *Arch Dis Child*, 46: 623–632.
- G.F. Solitro, F. Amirouche, 2016. *Innovative approach in the development of computer assisted algorithm for spine pedicle screw placement*. *Medical Engineering & Physics*, 38, 354-365
- G.Q. Sun, T.P. Lam, N.G. Bobby, P.Y. Yim, K.M. Lee, Y. Qiu, 2012. *Abnormal bone matrix mineralization in patients with adolescent idiopathic scoliosis*. *Studies in Health Technology & Informatics*, 176: 458.
- G.S. Nikolova, Y.E. Toshev, 2007. *Estimation of male and female body segment parameters of the Bulgarian population using a 16-segmental mathematical model*. *J Biomech*, 40:3700-3707.
- Griza S , de Andrade CEC , Batista WW , Tentardini EK , Strohaecker TR, 2012. *Case study of Ti6Al4V pedicle screw failures due to geometric and microstructural aspects*. *Eng Fail Anal*, 25:133–43 .
- H. Labelle, P. Roussouly, E. Berthonnaud, E. Transfeldt M. O'Brien, D. Chopin, 2004. *Spondylolisthesis, pelvic incidence, and spinopelvic balance: a correlation study*. *Spine* 29, 2049–2054.

- H. Nieto, C. Baroan, 2017. *Limits of internal fixation in long-bone fracture*. *Orthopaedics & Traumatology: Surgery & Research*, 103:61-3.
- H. Van Mameren, H. Sanches, J. Beursgens, J. Drukker, 1992. *Cervical spine motion in the sagittal plane. II. Position of segmental averaged instantaneous centers of rotation—a cineradiographic study*. *Spine*, 17: 467–474
- H.T. Huebert, 1967. *Scoliosis. A brief history*, *Manit Med Rev*, 47: 452–456
- Haddas Ram, Xu Ming, Lieberman Isador, Yang James, 2019. *Finite Element Based-Analysis for Pre and Post Lumbar Fusion of Adult Degenerative Scoliosis Patients*, 543-552
- J Bone Joint Surg Br, James JIP, 1954. *Idiopathic scoliosis; the prognosis, diagnosis, and operative indications related to curve patterns and the age at onset*, 36B:36–49
- J. Alan. Spurway, K. Chukwudi, Kishta E. Waleed, Hurry K. Jennifer, El-Hawary Ron, 2016. *Sagittal Spine Length Measurement: A Novel Technique to Assess Growth of the Spine*, 331-337
- J. Cordey, S. Perren, S. Steinemann, 2000. *Stress protection due to plates: myth or reality? A parametric analysis made using the composite beam theory*. *Injury*, 31:87
- J. Cossy, 2010. *Correlation between immediate in brace correction and biomechanical effectiveness of brace treatment in adolescent idiopathic scoliosis*. *Spine*, 35:1706-1713.
- J. Homminga, H. Weinans, W. Gowin, D. Felsenberg, R. Huiskes, 2001. *Osteoporosis changes the amount of vertebral trabecular bone at risk of fracture but not the vertebral load distribution*. *Spine*, 26:1555-1561.
- J. Mizrahi, M.J Silva, T.M. Keaveny, W.T. Edwards, W.C. Hayes, 1993. *Finite element stress analysis of the normal and osteoporotic lumbar vertebral body*. *Spine*, 18:2088.
- J. Resina, A.F. Alves, 1977. *Technique of correction and internal fixation for scoliosis*. *J Bone Joint Surg Br*, 59:159–165
- J. Yu, L. Li, T. Wang, L. Sheng, Y. Huo, Z. Yin, 2015. *Intramedullary nail versus plate treatments for distal tibial fractures: a meta-analysis*. *Int J Surgery*, 16 : 60–8.
- J.A. Wheeldon, F.A. Pintar, S. Knowles, N. Yoganandan, 2004. *Experimental flexion/extension data corridors for validation of finite element models of the young, normal cervical spine*. *Journal of Biomechanics* 39, 375–380.
- J.L Berry, J.M. Moran, W.S. Berg, A.D Steffee, 1987. *A morphometric study of human lumbar and selected thoracic vertebrae*. *Spine*, 12: 362–367
- J.R Cobb, 1948. *Outline for the study of scoliosis*. *Instr Course Lect*, 5:261–275

- J.S. Aebi M, 1996. *Manual of Internal Fixation of the Spine*. Philadelphia, PA: Lippincott–Raven Publishers, 9–21
- Joszko Kamil, Gzik Marek, Wola Wojciech \_nski, Bo\_zena Gzik-Zroska, Edyta Kawlewska, 2017. *Biomechanical evaluation of human lumbar spine in spondylolisthesis*.
- K. Kumar, 1996. *Spinal deformity and axial traction*. Spine, 21: 653–655
- K. Sairyo, S. Katoh, T. Ikata, K. Fujii, K. Kajiura, V.K. Goel, 2001. *Development of spondylolytic olisthesis in adolescents*. Spine J. 1, 171–175.
- K.G. Faulkner, C.E. Cann, B.H. Hasegawa, 1991. *Effect of bone distribution on vertebral strength: assessment with patient-specific nonlinear finite element analysis*. Radiology, 179:669.
- L. Murr, 2017. *Open-cellular metal implant design and fabrication for biomechanical compatibility with bone using electron beam melting*, *Journal of the Mechanical Behavior of Biomedical Materials*.
- Liu Tao, Khalaf Kinda, Naserkhaki Sadegh, Marwan El-Rich, 2018. *Load-sharing in the lumbosacral spine in neutral standing & flexed postures – A combined finite element and inverse static study*.
- Luque ER, Clin Orthop Relat Res, 1982. *Segmental spinal instrumentation for correction of scoliosis, biomechanic scoliosis*, 163:192–198
- Marco Palanca, Sara Oliviero, Enrico Dall'Ara. *MicroFE models of porcine vertebrae with induced bone focal lesions: Validation of predicted displacements with digital volume correlation*, *journal of the mechanical behavior of biomedical materials*, 2022;125;104872.
- M. Dreischarf, T. Zander, A. Shirazi-Adl, 2014. *Comparison of eight published static finite element models of the intact lumbar spine: predictive power of models improves when combined together*. J Biomech, 47:17-57.
- M. Driscoll, J.M. Mac-Thiong, H. Labelle, S. Stad, H. Serhan, S. Parent, 2015. *Biomechanical Comparison of 2 Different Pedicle Screw Systems During the Surgical Correction of Adult Spinal Deformities*, *Spine Deformity*, Vol 3, 114-121
- M. Rusli, H. Dahlan, R. E. Sahputra and M. Bur, 2020. *Stress analysis in pedicle screw and bone interface by various contact models in scoliotic spine fixation*. IOP :Materials Science and Engineering 830, 52

- M. Rusli, N.K. Putra, H. Dahlan and R.E. Sahputra, 2019. *Biomechanical Analysis of Correction Force and Cobb Angle in A Simple Model of Scoliotic Spine Fixation* AIP Conference Proceedings 2187 050022-1-6
- M.A. Adams, P. Dolan, W.C. Hutton, 1988. *The lumbar spine in backward bending Spine* 13, 1019–1026
- M.A. Liebschner, D.L. Kopperdahl, W.S. Rosenberg, T.M Keaveny, 2003. *Finite element modeling of the human thoracolumbar spine*. Spine, 28:559-565.
- M.A. Adams, W.C. Hutton, J.R. Stott, 1980. *The resistance to flexion of the lumbar intervertebral joint*. Spine 5 (3), 245–253
- M.J Silva, T.M. Keaveny, W.C. Hayes, 1998. *Computed tomography-based finite element analysis predicts failure loads and fracture patterns for vertebral sections*. J Orthop Res., 16:300-308.
- M.J. Silva, T.M. Keaveny, W.C. Hayes, 1997. *Load sharing between the shell and centrum in the lumbar vertebral body*. Spine, 22:140-150.
- M.M Panjabi, J.J. Crisco, A. Vasavada, T. Oda, J. Cholewicki, K. Nibu, E. Shin, 2001. *Mechanical properties of human cervical spine as shown by three dimensional load displacement curves*. Spine, 26 (24), 2692–2700.
- M.M. Panjabi, 1998. *Cervical spine models for biomechanical research*. Spine 23 (24), 2684–2700.
- M.M. Panjabi, J. Duranceau, V. Goel, T. Oxland, K. Takata., 1991. *Cervical human vertebrae. Quantitative three-dimensional anatomy of the middle and lower regions*. Spine, 16: 861–869
- M.M. Panjabi, J. Dvorak, J.J. Crisco, T. Oda, P. Wang, D. Grob, 1991. *Effects of alar ligament transaction on upper cervical spine rotation*. Journal of Orthopaedic Research 9 (4), 584–593.
- M.W. Whittle, M. Evans, 1979. *Instrument for measuring the Cobb angle in scoliosis*, Lancet, 1:414
- Ming Xu, James Yang, Isador Lieberman, Ram Haddas, 2019. *Stress distribution in vertebral bone and pedicle screw and screw–bone load transfers among various fixation methods for lumbar spine surgical alignment: A finite element study*, 26-32
- Mohammad Nikkhooa, Chih-Hsiu Chengb, Jaw-Lin Wangc, Zahra Khoza, Marwan El-Richd, Nader Hebelae, Kinda Khalaff, 2019. *Development and validation of a geometrically personalized finite element model of the lower ligamentous cervical spine for clinical applications*. Computers in biology and medicine 109, 22 -32.

- N.J. Dubousset, 1998. *Idiopathic scoliosis. Definition pathology classification etiology.* *Bulletin de l'Academie nationale de medecine*, 183(4), 699-704
- N.M. Ye, Z.D. Liu, C.T. Wang, 2009. *The patient-specific brace design and biomechanical analysis of adolescent idiopathic scoliosis.* *J Biomech Eng.*, 131:041007
- Newcomb Agus, S. Baek, B.P. Kelly, N.R. Crawford, 2017. Effect of screw position on load transfer in lumbar pedicle screws: a non-idealized finite element analysis. *Comput Methods Biomed Eng*, 20:182–92
- Peter.O Newton, Michael F.O' Brien, Harry L. Shufflebarger, Raandal R. Betz, Robert A. Dickson, Jurgen Harms, 2013. *Idiopathic Scoliosis*, 19
- P.B. Voleti, F.H. Shen, V. Arle, 2014. *Failure of Monoaxial Pedicle Screws at the Distal End of Skoliosis Constructs: A Case Series.* *Spine Deformity*, Vol 2, 110-121
- Pe'rez del Palomar, CalvoM. Doblare, 2008. *An accurate finite element model of the cervical spine under quasi-static loading.*
- Q.H. Zhang, E.C. Teo, H.W. Ng, V.S. Lee, 2006. *Finite element analysis of moment–rotation relationships for human cervical spine.* *Journal of Biomechanics* 39.
- Qing-Bo Lv, Xiang Gao, Xiang-Xiang Pan, Hai-Ming Jin, Xiao-Ting Lou, Shu-Min Li, Ying-Zhao Yan, Cong-Cong Wu, Yan Lin, Wen-Fei Ni, Xiang-Yang Wang, Ai-Min WuA, 2018. *Biomechanical properties of novel transpedicular transdiscal screw fixation with interbody arthrodesis technique in lumbar spine, finite element study* *Journal of Orthopaedic Translation*, 15.
- R. El-Hawary, A. Samdani, J. Wade, 2015. *Children's Spine Study Group. Rib-based distraction surgery maintains total spine growth.* *J Paediatr Orthop*, 1-6. Epub ahead of Print.
- R.N. Natarajan, R.B. Garretson, A. Biyani, T.H. Lim, G.B. Andersson, 2003. *Effects of slip severity and loading directions on the stability of isthmic spondylolisthesis: a finite element model study.* *Spine*, 28, 1103–1112.
- R.P. Crawford, W.S. Rosenberg, T.M. Keaveny, 2003. *Quantitative computed tomography-based finite element models of the human lumbar vertebral body: effect of element size on stiffness, damage, and fracture strength predictions.* *J Biomech Eng*, 125:434.
- Roth K. Alex, Beheshtiha Sh. Alireza, Meer van der Ronald, C. Paul. Willems, Jacobus J. Arts, Keita Ito, Bert van Rietbergen, 2021. *Validation of a finite element model of the thoracolumbar spine to study instrumentation level variations in early onset scoliosis correction*, p 25- 28

- S. Asiri, H. Hedia, N. Fouda, 2016. *Improving the performance of cementless knee prosthesis coating through functionally graded material*, *Materials Testing*, 58(11–12) : 939 – 45
- S.A Caruso, J.Y Margulies, J. Gorup, 1996. *Instrumented fusions of the lumbosacral spine: a technical overview*. In: Margulies JY, ed. *Lumbosacral and Spinopelvic Fixation*. Philadelphia. PA: Lippincott–Raven Publishers, 199 - 211
- S.H. Kim, S.H. Chang, H.J. Jung, 2010. *The finite element analysis of a fractured tibia applied by composite bone plates considering contact conditions and time varying properties of curing tissues*. *Compos Struct*, 92(9): 2109–18.
- S.K. Dailey, A.H. Crawford, F.S. Asghar, 2015. *Implant Failure Following Posterior Spinal Fusion Caudal Migration of a Fractured Rod-Case Report*, *Spine Deformity*, Vol 3, 380-385.
- S.T. Takashima, S.P. Singh, K.A. Haderspeck, A.B. Schultz, 1979. *A model for semi-quantitative studies of muscle actions*. *J Biomech* ;12:929-939.
- Stefan Schmid , Katelyn A. Burkhardt, Brett T. Allaire, Daniel Grindle, Dennis E. Anderson, 2019. *Musculoskeletal full-body models including a detailed thoracolumbar spine for children and adolescents aged 6–18 years*
- T. Matsumoto, I. Ohnishi, M. Bessho, K. Imai, S. Ohashi, K. Nakamura, 2009,. *Prediction of vertebral strength under loading conditions occurring in activities of daily living using a computed tomography-based nonlinear finite element method*, *Spine*. 2009;34:1464.
- T.H. Huang, H.L. Ma, S.T. Wang, P.H. Chou, 2014. *Does the size of the rod affect the surgical results in adolescent idiopathic scoliosis 5.5 mm versus 6.35 mm rod*. *The Spine Journal*, Vol 14 (1), 1545-1550.
- T.P. Lam, V.W. Hung, H.Y. Yeung, Y.K. Tse, W.C. Chu, 2011. *Abnormal bone quality in adolescent idiopathic scoliosis: a case-control study on 635 subjects and 269 normal controls with bone densitometry and quantitative ultrasound*, *Spine (Phila Pa 1976)*, 36:1211-1217.
- Timothy M. Hresko, 2013. *Idiopathic Scoliosis in Adolescents*. *The new england journal of medicine*.
- Torphong Bunmaprasert, Nattharut Chaibhuddanugul, Jakkrit Keeratiruangrong, Raphi Raphitphan, Nantawit Sugandhavesa, Wongthawat Liawrungrueang, 2021. *Corrective osteotomy of global sagittal imbalance in the neglected fracture-dislocation thoracic spine*

- V. Varghese, G.S. Kumar, V. Krishnan, 2017. *Effect of various factors on pull out strength of pedicle screw in normal and osteoporotic cancellous bone models*. *Medical Engineering & Physics*, Vol 40, 28-38
- W.S. Cho, K. Cho, Wu, Cu, 2010. *The biomechanics of pedicle screw-based instrumentation*. University of Virginia, Charlottesville, Virginia, United States.
- Wen-Ming Chen, Jie Jin, Taehyung Park, Kyeong-Sik Ryu, Sung-Jae Lee, 2018. *Strain behavior of malaligned cervical spine implanted with metal-on-polyethylene, metal-on-metal, and elastomeric artificial disc prostheses – A finite element analysis*, p:19-26.
- X. Yangtao, Y. Yan, X. Tiandong, 2008. *Study on Fretting Friction Coefficient Between NiTi Shape Memory Alloy and Human Bone in Hank's Solution*. *Rare Metal Mater. Eng.* **37**, 1201–1205.
- X.F Li, Z.D. Liu, L.Y. Dai, G.B. Zhong, W.P. Zang, 2011. *Dynamic response of the idiopathic scoliotic spine to axial cyclic loads*. *Spine*, p;36:521.
- Xiao-Xing Song, Lin-Yu Jin, Xin-Feng Li, Lie Qian, Hong-Xing Shen, Zu-De Liu, Bu-Wei Yu, 2018. *Effects of Low Bone Mineral Status on Biomechanical Characteristics in Idiopathic Scoliotic Spinal Deformity: Word Neuro Surgery*, E321- 329.
- Xu Ming, Yang James, Lieberman Isador, Haddas Ram, 2019. *Stress distribution in vertebral bone and pedicle screw and screw–bone load transfers among various fixation methods for lumbar spine surgical alignment: A finite element study*, , *Journal Medical Engineering and Physics* **63**, 26–32
- Y. Amaritsakul, C.K.Chao, J.Lin, 2014. *Biomechanical evaluation of bending strength of spinal pedicle screws, including cylindrical, conical, dual core and double dual core designs using numerical simulations and mechanical tests*, *Med Eng Phys*;36:1218–23
- Zeinab Kamal, Gholamreza Rouhi, Navid Arjmand, Samer Adeeb, 2019. *A stability-based model of a growing spine with adolescent idiopathic scoliosis: A combination of musculoskeletal and finite element approaches*, *Journal Medical Engineering and Physics* **64** 46–55
- Zwambag P. Derek, Beaudette M.Shawn, Gregory E.Diane, Brown H.M Stephen, 2019. *Distinguishing between typical and atypical motion patterns amongst healthy individuals during a constrained spine flexion task*, 89-95
- Yifeng Yu, Wenjing Li, Lingjia Yu, Hao Qu, Tong Niu, Yu Zhao, 2020, *Population-based design and 3D finite element analysis of transforaminal, Journal of Orthopaedic Translation thoracic interbody fusion cages*, 21, 35 – 41.