References

[1] Postolka B, Taylor WR, Dätwyler K, Heller MO, List R, Schütz P. Interpretation of natural tibio-femoral kinematics critically depends upon the kinematic analysis approach: A survey and comparison of methodologies. J Biomech 2022;144:111306. <https://doi.org/10.1016/j.jbiomech.2022.111306>.

[2] Kaufman KR, Hughes C, Morrey BF, et al. Gait characteristics of patients with knee osteoarthritis. Journal of Biomechanics 2001;34:907-15. <https://doi.org/10.1016/S0021-9290(01)00036-7>

[3] Astephen JL, Deluzio KJ, Caldwell GE, et al. Biomechanical changes at the hip, knee, and ankle joints during gait are associated with knee osteoarthritis severity. Journal of Orthopaedic Research 2008;26:332-41. <https://doi.org/10.1002/jor.20496>

[4] Tashman S, Kopf S, Fu FH. The Kinematic Basis of Anterior Cruciate Ligament Reconstruction. Oper Tech Sports Med 2008;16:116-8. <https://doi.org/10.1053/j.otsm.2008.10.005>.

[5] Andriacchi TP, Mündermann A. The role of ambulatory mechanics in the initiation and progression of knee osteoarthritis. Curr Opin Rheumatol 2006;18:514-8. <https://doi.org/10.1097/01.bor.0000240365.16842.4e>.

[6] Georgoulis AD, Papadonikolakis A, Mitsou A, Stergiou N. Three-Dimensional Tibiofemoral Kinematics of the Anterior Cruciate Ligament-Deficient and Reconstructed Knee during Walking. The American Journal of Sports Medicine 2003;31:75-79. <https://doi.org/10.1177/03635465030310012401>

[7] Barrance PJ, Williams GN, Snyder-Mackler L, Buchanan TS. Altered knee kinematics in ACL-deficient non-copers: a comparison using dynamic MRI. Journal of Orthopaedic Research 2006;24:132–40. <https://doi.org/10.1002/jor.20016>.

[8] Conconi M, De Carli F, Berni M, Sancisi N, Parenti-Castelli V, Monetti G. In-Vivo Quantification of Knee Deep-Flexion in Physiological Loading Condition through Dynamic MRI. Applied Sciences 2023;13:629. <https://doi.org/10.3390/app13010629>.

[9] Draper CE, Besier TF, Santos JM, Jennings F, Fredericson M, Gold GE, et al. Using real-time MRI to quantify altered joint kinematics in subjects with patellofemoral pain and to evaluate the effects of a patellar brace or sleeve on joint motion. Journal of Orthopaedic Research 2009;27:571–7. <https://doi.org/10.1002/jor.20790>.

[10] Kaiser J, Bradford R, Johnson K, Wieben O, Thelen DG. Measurement of tibiofemoral kinematics using highly accelerated 3D radial sampling. Magnetic Resonance in Medicine 2013;69:1310–6. <https://doi.org/10.1002/mrm.24362>.

[11] Kaiser J, Vignos MF, Kijowski R, Baer G, Thelen DG. Effect of Loading on In Vivo Tibiofemoral and Patellofemoral Kinematics of Healthy and ACL-Reconstructed Knees. The American Journal of Sports Medicine 2017;45:3272–9. <https://doi.org/10.1177/0363546517724417>.

[12] Brossmann J, Muhle C, Schröder C, Melchert UH, Büll CC, Spielmann RP, et al. Patellar tracking patterns during active and passive knee extension: evaluation with motion-triggered cine MR imaging. Radiology 1993;187:205–12. <https://doi.org/10.1148/radiology.187.1.8451415>.

[13] Seisler AR, Sheehan FT. Normative three-dimensional patellofemoral and tibiofemoral kinematics: a dynamic, in vivo study. IEEE Transactions on Bio-Medical Engineering 2007;54:1333–41. <https://doi.org/10.1109/TBME.2007.890735>.

[14] Behnam AJ, Herzka DA, Sheehan FT. Assessing the accuracy and precision of musculoskeletal motion tracking using cine-PC MRI on a 3.0T platform. Journal of Biomechanics 2011;44:193–7. <https://doi.org/10.1016/j.jbiomech.2010.08.029>.

[15] Westphal CJ, Schmitz A, Reeder SB, Thelen DG. Load-dependent variations in knee kinematics measured with dynamic MRI. Journal of Biomechanics 2013;46:2045–52. <https://doi.org/10.1016/j.jbiomech.2013.05.027>.

[16] Brisson, Nicholas M., Martin Krämer, Leonie A.N. Krahl, et al. A novel multipurpose device for guided knee motion and loading during dynamic magnetic resonance imaging. Zeitschrift für Medizinische Physik 2022;32:500–13. <https://doi.org/10.1016/j.zemedi.2021.12.002>.

[17] Winkelmann S, Schaeffter T, Koehler T, Eggers H, Doessel O. An Optimal Radial Profile Order Based on the Golden Ratio for Time-Resolved MRI. IEEE Transactions on Medical Imaging 2007;26:68-76. <https://doi.org/10.1109/TMI.2006.885337>

[18] Krämer M, Herrmann KH, Biermann J, Reichenbach JR. Retrospective reconstruction of cardiac cine images from golden‐ratio radial MRI using one‐dimensional navigators. Journal of Magnetic Resonance Imaging 2014;40:413-22. <https://doi.org/10.1002/jmri.24364>

[19] Aleksiev, Martin, Martin Krämer, Nicholas M. Brisson, et al. High-resolution CINE imaging of active guided knee motion using continuously acquired golden-angle radial MRI and rotary sensor information. Magnetic Resonance Imaging 2022;92:161–68 <https://doi.org/10.1016/j.mri.2022.06.015>

[20] Wood et al. Radial Interstices Enable Speedy Low-volume Imaging. Journal of Open Source Software 2021;6(66):3500, <https://doi.org/10.21105/joss.03500>

[21] Canny, J. A Computational Approach to Edge Detection. IEEE Transactions on Pattern Analysis and Machine Intelligence PAMI 1986;8.6:679–698. <https://doi.org/10.1109/TPAMI.1986.4767851>

[22] Dillencourt MB, Samet H, Tamminen M. A general approach to connected-component labeling for arbitrary image representations. Journal of the ACM 1992;39:253-80. <https://doi.org/10.1145/128749.128750>

[23] Hinneburg A, Aggarwal, CC, Keim DA. What is the nearest neighbor in high dimensional spaces?. Proc. of the 26th Internat. Conference on Very Large Databases, Cairo, Egypt 2000;506-15. <http://nbn-resolving.de/urn:nbn:de:bsz:352-opus-70224>

[24] De Boor C. A Practical Guide to Splines. Marsden JE, Sirovich L, editors. Vol. 27, New York: Springer; 1978.

[25] Sofroniew N, Lambert T, Evans K, et al. napari: a multi-dimensional image viewer for Python (v0.4.16). Zenodo 2022. <https://doi.org/10.5281/zenodo.6598542>.

[26] Jolliffe IT. Principal component analysis. 2nd edition. New York: Springer series in statistics; 2004.

[27] Fellows RA, Hill NA, Gill HS, et al. Magnetic resonance imaging for in vivo assessment of three-dimensional patellar tracking. J Biomech. 2005;38(8):1643-1652 <https://doi.org/10.1016/j.jbiomech.2004.07.021>

[28] Colvin AC, West RV. Patellar instability. J Bone Joint Surg Am. 2008;90(12):2751-2762 <https://doi.org/10.2106/JBJS.H.00211>