Evaluation of user experience in human-robot collision tests

Using the same statistical methods (ANOVA tests) applied for the evaluation of the user experience in the two CyberWalk papers [1-2], evaluate the campaign of human-robot collision tests performed in the Robotics Laboratory in association with the work in [3].

Supporting material:

[1] J. Souman, P. Robuffo Giordano, I. Frissen, A. De Luca, and M. Ernst, "Making virtual walking real: Perceptual evaluation of a new treadmill control algorithm," *ACM Trans. on Applied Perception*, vol. 7, no. 2, pp. 11:1-11:14, 2010.

[2] J. Souman, P. Robuffo Giordano, M. Schwaiger, I. Frissen, T. Thümmel, H. Ulbrich, A. De Luca, H. Bülthoff, and M. Ernst, "CyberWalk: Enabling unconstrained omnidirectional walking through virtual environments," *ACM Trans. on Applied Perception*, vol. 8, no. 4, pp. 24:1-24:22, 2011.

[3] M. Geravand, F. Flacco, and A. De Luca, "Human-robot physical interaction and collaboration using an industrial robot with a closed control architecture," *Proc. IEEE Int. Conf. on Robotics and Automation*, pp. 4000-4007, 2013.

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