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Completely Automated Public **Physical** test to tell Computers and Humans Apart: A usability study on mobile devices

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this paper extends our work "M. Guerar, M. Migliardi, A. Merlo, M. Benmohammed, B. Messabih, A Completely Automatic Public Physical test to tell Computers and Humans Apart: a way to enhance authentication schemes in mobile devices, in Proc. of the 10th International Conference on High Performance Computing Systems (HPCS 2015), July 20 - 24, 2015, Amsterdam (NL)." as such:

- we provide an extended discussion of the methodologies dedicated to cull out automated malicious attacks to authentication mechanisms
- we provide an extended usability comparison both in terms of time needed to complete the challenge and in terms of error rates (false negatives, false positives are not possible in our scheme)
- we provide an extensive survey of our mechanism usability adopting the same methodology that has been used in the literature to evaluate the usability of CAPTCHAs
- we discuss the results of our survey and through them we show that our mechanism is both secure and usable