



Rotation invariants of two dimensional curves based on iterated integrals

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We introduce a novel class of rotation invariants of two dimensional curves based on iterated integrals. The invariants we present are in some sense complete and we describe an algorithm to calculate them, giving explicit computations up to order six. We present an application to online (stroke-trajectory based) character recognition. This seems to be the first time in the literature that the use of iterated integrals of a curve is proposed for (invariant) feature extraction in machine learning applications.

Subjects: **Computer Vision and Pattern Recognition (cs.CV)**; Machine Learning (stat.ML)

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