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27695. *Object-image correspondence for curves under central and parallel projections*. Preliminary
report.

We provide criteria for deciding whether a given planar curve is an image of a given spatial curve, obtained by a central or a parallel projection. These criteria reduce the projection problem to a certain variation of the equivalence problem of planar curves under affine and projective transformations. The latter problem can be addressed using Cartan's moving frame method. This leads to an algorithmic solution of the projection problem for curves. The same approach can be used to decide whether a given finite set of ordered points on a plane image of a given finite ordered set of points in \mathbf{R}^3 . (Received February 11, 2010)