

L2-C2 Hough Transform

For a drone following the traffic from the air, vision is used to follow the road. Your colleague shows you one test where they used Hough transform (Fig2) to track the orientation and placement of the road (Fig1). What statements can you make using the transform shown in (Fig2) (several answers possible)? Radius is relative to the center of the image, the angle is counterclockwise with a zero set vertically.

A: We can see from (Fig2) that the road is more or less going through the center of the image and, in respect to the horizontal line, around 30 degrees of angle (around 60 from vertical line)

B: The transform (Fig2) cannot be the one of the image (Fig1), as the coordinate system is not matching the basic theory of the transform.

C: The truck is 60 degrees away from the center of the image, nearly centered on the road (in respect to the whole image).

D: In general one cannot apply the Hough transform on the raw image, this does not generalize to other situations. At least one step is missing in the process.

Fig1:

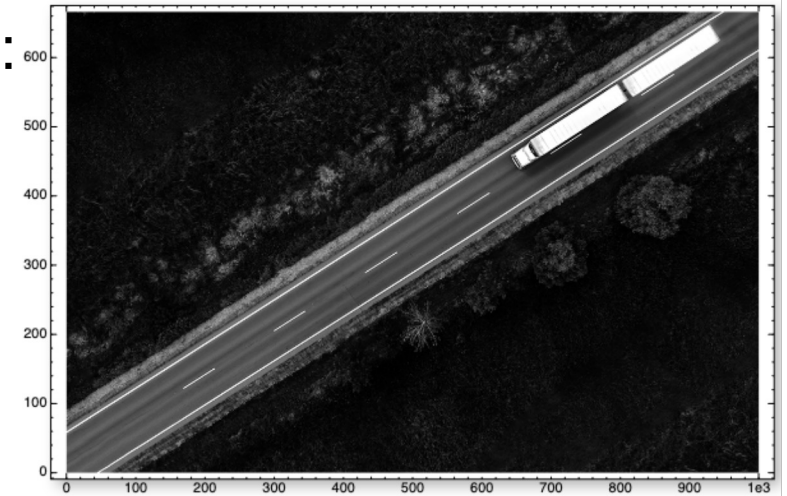


Fig2:

