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ABSTRACT
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ACTIVE THERMAL SUPER-RESOLUTION BASED ON LASER FLYING SPOT TECHNIQUE COUPLED WITH IR THERMOGRAPHY: EXTENSION INTO 2D ANALYSIS

The resolution of thermal images captured by an IR camera is typically limited by the size of its pixels. The aim of this study is to increase the resolution of such images by using a laser spot with a diameter smaller than a camera pixel. Following a first study on this subject which investigated the problem on a purely 1D spatial problem, a further study is proposed on a 2D problem and exploit the spatial information given by the whole thermogram. By analysing the thermal response and the position of the laser within the camera pixels, this method takes a step towards achieving 2D thermal super-resolution.