

# The 6<sup>th</sup> Joint Conference Ramathibodi - Osaka University

~ Cutting Edge Innovation on COVID-19 and Beyond ~

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## Abstract Sheet

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### Abstract 【English】

Exercise is important to maintain our health while dealing with infectious diseases. Social distancing is more important during exercise because we may not be able to wear masks to avoid breathing problems, heatstroke, etc. To maintain social distancing during exercise, we develop a close-contact detection system using a single camera. The system recognizes people from a video and estimates the interpersonal distance for close-contact detection. The challenge is the occlusion of people, which leads to false negatives. To solve the problem, we leverage the observation that most false negatives in human detection are caused by occlusion owing to other people. Then, we assume that a person still exists near the last detected position even when s/he disappears in the proximity of other people. The evaluation results show that the start and end time errors are within 1 second for more than 90% of the close-contacts.

### Abstract 【日本語】