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## 'Flowonthego' - flow tracking technology on your smartphone

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Over the past few years, smartphone devices have become so powerful that in your pocket, not only do you have a device which can communicate with people across the world, the sheer power of these devices has now also brought a new frontier in scientific measurements. In this presentation, we present our smartphone app 'flowonthego', a technology which allows users to determine flow velocities, in almost real-time, from simple video footage. The instantaneous velocity fields are calculated by solving the Lucas-Kanade solutions to the optical flow equations and tracking naturally occurring features. The app also harnesses the potential of augmented reality, making calibration reference and the need tape measures a thing of the past. Furthermore, the app also packs an arsenal of post-processing tools in which users can understand basic statistics. From preliminary our studies we have found 'flowonthego' is able to match the statistics of commonly used ADCP's while also providing instantaneous full vector fields allowing users to better understand dynamical processing.

