Precise Variance Detection by a Single GPS-Receiver --- PVD (Point precise Variance Detection) Method ---

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If GPS antenna is attached to a buoy, movements of water surface can be measured. The kinematic method assures high precision measurements, but a reference point on land become necessary. In RTK measurements, the distance between the reference and observation points can not be taken long. On the other hand, large amounts of data must be sent from the observation point to the reference point. Furthermore, the kinematic method requires heavy computation loads. So, a high speed sampling measurement is not possible conventionally. A high precision measurement without a reference point would be very convenient. In this report, such kind of measurement is proposed, and the authors would like to refer the method as PVD (Point precise Variance Detection) method.