

Abstract Submitted
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Non-invasive measurement of the blood pressure pulse using multiple PPGs¹ JOHN SEYMOUR, GARY PENNINGTON, Towson University — Heart disease, the leading cause of death in the US, may be spotted early on by looking at photoplethysmogram (PPG) data. This experiment explores a new method of continuously monitoring the blood pressure pulse with PPG data. In contrast to the traditional sphygmomanometer (cuff) method, which yields only the systolic and diastolic pressure during measurement, this method tracks the blood pressure pulse wave in a non-invasive continuous manner. This procedure allows for fast, inexpensive, and detailed analysis of the patient's blood pressure implementable on a large scale. We also explore the second derivative of the PPG data. In combination with the above method, the patient's heart risk can be effectively detected.

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