# TWC: Small: Collaborative: Spoof-Resistant Smartphone Authentication using Cooperating Wearables

#### **Challenge:**

Development of a secure and easy-to-use mechanism of continuous user authentication for the current generation of smart phones

#### Solution:

- Continuous Authentication System based on Multi-Modal Wearable Devices
- Spoofing Attack Modeling and Analysis
- Usability Evaluations

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# Scientific Impact:

- Passive, behavior based authentication with spoof resistance
- Develop methods for improved efficacy and spoof resistance
- Show possible attacks and develop methods of prevention

### **Broader Impact**:

- Wide application of research results. Public release of research prototypes
- mentoring of students, and integration of research with computer security and *machine learning* curriculum`
- Outreach to high school and K-12 students, and minority populations via programming contests and summer camps