

The background of the slide is an abstract photograph. It features a wooden floor with a light brown, vertical-grain pattern. A large, dark, curved object, possibly a piece of furniture or a sculpture, is positioned in the lower-left and center of the frame, creating a strong geometric shape. The lighting is soft, casting gentle shadows.

AuraRing: Precise Electromagnetic Finger Tracking

Farshid Salemi Parizi*, Eric Whitmire*, and Shwetak Patel

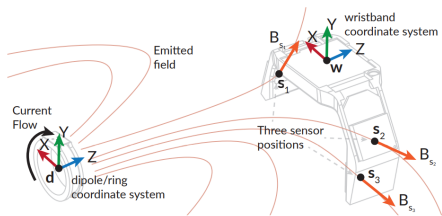
UbiComp'20

Introduction

Other Work

- Subtle
- Portable
- Precise
- No user calibration

Theory



Forward

$$\hat{s}_i = f_i(\vec{p}, \mathbf{q})$$

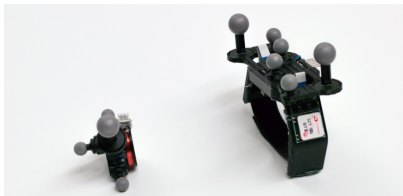
Sensor
measurement

Ring position

Ring orientation

Reverse

- Levenberg-Marquardt
- Calibration Data Collection



Runtime

Runtime Pose Estimation

