Public Abstract First Name: Calvin Middle Name: Everette Last Name: Phillips II Adviser's First Name: James Adviser's Last Name: Keller Graduation Term: FS 2012 Department: Computer Engineering Degree: MS Title: WALK DETECTION USING PULSE-DOPPLER RADAR

Proper fall risk assessment can help reduce the frequency of elderly people falling. A major aspect of a fall risk assessment is looking at the person's walking speed and other gait parameters. This paper will cover a method of detecting when walks occur using non-obtrusive radar sensors so that later, the different walking parameters can be extracted. The results show that pulse Doppler radars can be used to detect when someone is walking in actual living environments. This can lead to ongoing passive fall risks assessments, which could lead to proper care and reducing fall frequency.