# UNIVERSITY OF SOUTH FLORIDA

## Defense of a Doctoral Dissertation

Multi-Scale Spatial Cognition Models and Bio-inspired Robot Navigation
by
Martin Llofriu Alonso

For the Ph.D. degree in Computer Science & Engineering

This dissertation focuses on the study of the multi-scale representation of the animal's current location found in the rodent hippocampus. It studies the computational advantages of using a multi-scale representation of the current state in reinforcement learning algorithms. The developed framework is used as a model to explain existing experimental data with real animals, regarding the use of the different scales in behavior.

Wednesday, May 17, 2017 1:45 PM ENB 313

## THE PUBLIC IS INVITED

### Examining Committee

Kyle Reed, Ph.D., Chairperson Alfredo Weitzenfeld, Ph.D., Major Professor Yu Sun, Ph.D. David Diamond, Ph.D. Miguel Labrador, Ph.D. Wilfrido Moreno, Ph.D.

Robert Bishop, Ph.D. Dean, College of Engineering Dwayne Smith, Ph.D. Dean, Office of Graduate Studies

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