

Department of Psychology

# Colloquium Speaker

Hosted by:  
Robert Hampton



EMORY  
COLLEGE  
OF ARTS AND  
SCIENCES

October 8, 2019  
4:00 p.m.  
Psychology Building  
Room 290

Reception to follow in 280 PAIS

## Fiona Cross, Ph.D.



University of Florida, Gainesville FL. USA,  
University of Canterbury, Christchurch, New Zealand and  
International Centre of Insect Physiology and Ecology (icipe), Mbita, Kenya



**"Insights from specialized spiders into the  
study of animal cognition"**

Jumping spiders (family Salticidae) have unique, complex eyes and a capacity for spatial vision exceeding that for any other animals of similar size. Some salticids from a subfamily, Spartaeinae, are known to express an active preference for other spiders as prey ('araneophagy') and, using expectancy violation methods, research has shown that one of these spartaeine species, *Portia africana*, works with representations of different types of prey spiders. One strategy when preying on other spiders is executing pre-planned detours, and research has shown that capacity for detouring is widespread within the Spartaeinae. Moreover, new expectancy-violation experiments have shown that *Portia africana* represents the number of prey in a scene; *P. africana* becomes less inclined to complete a detour path if it encounters a different number of prey from what it had seen beforehand. This is an example of how specialized strategies for preying on a dangerous type of prey can help us gain important insights into animal cognition.