



**2017 CPS V&V *GRAND PRIX***  
**Carnegie Mellon University**

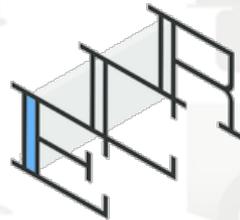


May 11, 2017

# 2017 CPS V&V GRAND PRIX



Invented for life



EDGE CASE RESEARCH



National Aeronautics  
and Space Administration

# SIEMENS

# Judges



**Alwyn Goodloe**

*NASA*



**Jim Kapinski**

*Toyota*



**Akshay Rajhans**

*MathWorks*



**Jose Calderon**

*Galois*



**Aaron Kane**

*Edge Case Research*



**Marco Gario**

*Siemens*



**Michael Maass**

*Bosch*



**Patricia Derler**

*National Instruments*



**Zhi Han**

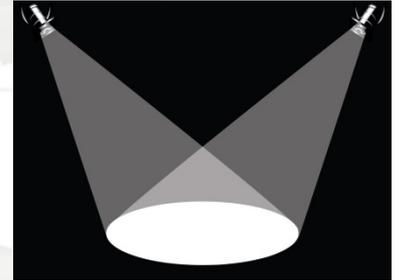
*Google*

# Students & Projects



Xue An Chuang, Adriel Luo  
***"RollerCoaster Tycoon X:  
Like the original,  
but safer."***

Becky Jesurum  
***"In the Spotlight:  
Verifying Automated  
Theatrical Follow-Spots"***



Manuel Fernandez  
***"Implementing Virtual  
Substitution for  
KeymaeraX"***

William Ganucheau  
***"What's up, dock?  
Provably Safe  
Boat Maneuvers"***

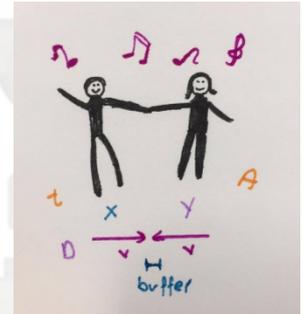


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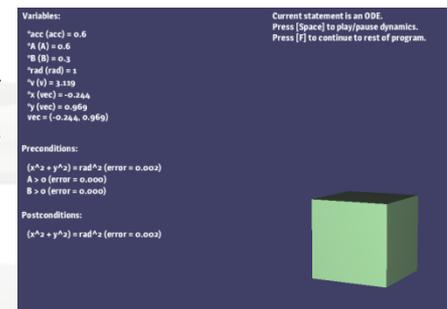
Rachel Holladay  
***“Cheat Code for Hybrid Games”***

Tia Jiang, Nazlı Uzgur  
***“Dance without embarrassing yourself: A cooperative hybrid system”***

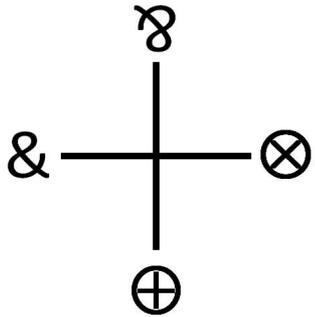


Irene Li, Jordan Tick  
***“Ship Outta Luck”***

Chris Yu  
***“A KeYmaera X Visualizer”***

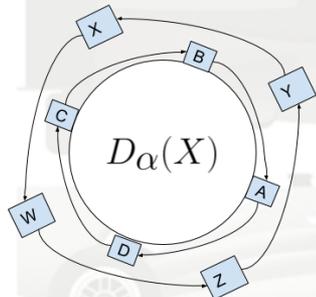


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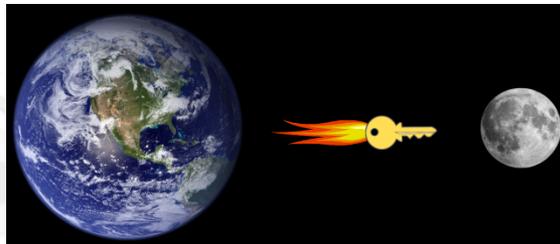
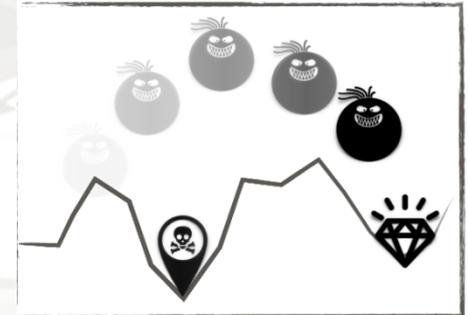
Vishant Prabhakaran  
***"Affine Dynamic Logic"***

Ananya Kumar  
***"Inductive Extensions to dL"***



Yong Kiam Tan  
***"Dependency Analysis for Hybrid Programs"***

Vidya Narayanan  
***"2D game design as CPS"***



Jon Xia, Richard Zhu  
***"Apollo 18: The KeY to the Next Mission to the Moon"***