# Renaissance of Robotic Grasping 机器人灵巧手抓取的复兴

#### Yu Sun / 孙宇 University of South Florida

Stanford University







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#### Stephen Jacobsen

#### John Hollerbach

#### Anthropomorphic Hands



DLR/HIT Hand

NASA Hand

**Bionic Hand** 

Shadow Hand



# Make your robot not just cool, USEFUL.





















## Grasping is solved!

#### Grasping for pick-and-place is solved

#### Grasping for manipulation will be solved







#### Functional Object-Oriented Network







#### Robot Intelligence vs. Computer Intelligence

#### Robots physically interact with the world

HOME CFP FORMAT RULES SUPPORT DEADLINES PEOPLE

http://www.rhgm.org/activities/competition\_iros2016/

Robotic Grasping and Manipulation Competition @ IROS 2016 (Oct. 10-12, 2016) in Daejeon, Korea



- Use a spoon to pick up peas
- Use a spoon to stir water in a cup
- Shake salt shaker
- Plug into a socket
- Hammer a nail
- Transfer straw into a to-go cup with lid
- Putting on or removing bolts from nuts with a nut driver
- Use a saw to saw open a cardboard along a line
- Open a bottle with a locking safety cap











### Make Grasping Great Again!!!

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