BEAU POLLARD

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EDUCATION

Clemson University, Clemson SC *August 2015 - Present*
Doctor of Philosophy
Department of Mechanical Engineering

Clemson University, Clemson SC *August 2010 - May 2015*
Bachelor of Science, Mechanical Engineering.

RESEARCH INTERESTS

- CFD particle methods for simulating swimming
- Bio-inspired locomotion and affects of passive appendages
- Machine learning
- Robotics
- Dynamics and controls

AWARDS & HONORS

- Best student paper from the Robotics Technical Committee of the ASME DSCC
- Eastman Excellence award winner 2018

JOURNAL PUBLICATIONS

- Pollard, Beau, Vitaliy Fedonyuk, and Phanindra Tallapragada. "Swimming on limit cycles with nonholonomic constraints." Nonlinear Dynamics 97.4 (2019): 2453-2468.
- Pollard, Beau, and Phanindra Tallapragada. "Passive appendages improve the maneuverability of fish-like robots." IEEE/ASME Transactions on Mechatronics (2019).
- Pollard, Beau, and Phanindra Tallapragada. "An aquatic robot propelled by an internal rotor." IEEE/ASME Transactions on Mechatronics 22.2 (2016): 931-939.

CONFERENCE PUBLICATIONS

- Pollard, Beau, Michael D. Patterson, and Siena Whiteside. "A Combined Blade Element and Vortex Panel Method for Stacked Rotor Analysis." AIAA Aviation 2019 Forum. 2019.
- Pollard, Beau, Vitaliy Fedonyuk, and Phanindra Tallapragada. "Limit Cycle Behavior and Model Reduction of an Oscillating Fish-Like Robot." Proc. of the ASME Dynamic Systems and Control Conference (Atlanta, Ga., Sept 30Oct 3, 2018). Vol. 1. 2018.
- Pollard, Beau, Tyler Berkey, and Phanindra Tallapragada. "Direct Tail Actuation vs Internal Rotor Propulsion in Aquatic Robots." ASME Dynamic Systems and Control Conference. 2017.
- Pollard, Beau, and Phanindra Tallapragada. "Fish like aquatic robot demonstrates characteristics of a linear system." ASME 2016 Dynamic Systems and Control Conference. American Society of Mechanical Engineers, 2016.

ADDITIONAL PRESENTATIONS AND SEMINARS

- Pollard, Beau, Vitaliy Fedonyuk, and Phanindra Tallapragada. "Swimming on limit cycles with nonholonomic constraints." Bulletin of the American Physical Society. 2018.
- Pollard, Beau and Phanindra Tallapragada. "A bioinspired modular aquatic robot." Bulletin of the American Physical Society. 2016.

PROGRAMMING LANGUAGES

- Matlab
- Fortran
- C++
- Python
- Latex
- Overflow
- Maple
- NDARC
- OpenVSP
- Solidworks