

ROBERT J. WAGNER

PERSONAL DATA

Department of Mechanical Engineering
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EDUCATION & TRAINING

Ph.D., Material Science & Engineering
University of Colorado, Boulder, CO, August 2017 – August 2022
Thesis Advisor: Professor Franck J. Vernerey

B.S., Mechanical Engineering (*Magna cum laude*)
Union College, Schenectady, NY, September 2009 – June 2013.
Study Abroad: Czech Technical University, Prague, Czech Republic, Fall 2012

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SCHOLARLY PUBLICATIONS (CONTINUED)

1. Vernerey, F. J., Shen, T., Sridhar, S. L. & **Wagner, R. J.** How do fire ants control the rheology of their aggregations? A statistical mechanics approach. *Journal of The Royal Society Interface* 15, 20180642 (2018).

PATENTS

4. Rockford D. Lyle, Jesse B. Riha, Daniel L. Havelka, **Robert J. Wagner**. 2020. Wiper seal system and method. 10648566. Filed February 28, 2018. Issued May 12, 2020.
3. Benjamin J. Kubichek, Joseph W. Pallini, Jesse B. Riha, Daniel L. Havelka, **Robert J. Wagner**. 2019. Inverted pull-up riser tensioner. 10174566. Filed February 16, 2017. Issued January 8, 2019.
2. Joseph W. Pallini, Rockford D. Lyle, **Robert J. Wagner**. 2018. Remotely operated external tieback connector. 9938792. Filed November 6, 2015. Issued April 10, 2018.
1. **Robert J. Wagner**, Benjamin J. Kubichek, Daniel L. Havelka. 2017. Tensioner cylinder with internal

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PROFESSIONAL SERVICE ACTIVITIES & OUTREACH (CONTINUED)

Volunteer for the **Families Learning Science Together** program at **Tompkins County Public Library** to lead students (ages 5-9) through active learning activities and promote open-access STEM education in the Ithaca community.

- May 13th, 2023. Mechanics of bridge building workshop.
- March 11th, 2023. Bernoulli's principle workshop.
- January 14th, 2023. Electrostatics workshop.
- December 10th, 2022. Circuits workshop.
- November 5th, 2022. Chemistry workshop.
- October 8th, 2022. Science of Sound workshop.

Co-lead of Lego Car build activity at **GAANN Engineering Field Day** for middle school students. May 11th, 2022. Active learning activity in which students from Denver, CO were taught about the design principles that improve thrust-driven vehicle performance.

Event organizer and moderator for the **2nd Annual Non-**