



NATIONAL
ACADEMIES

Sciences
Engineering
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THE USNC/TAM 5MT

A 5-minute Virtual Thesis in Mechanics Competition

The U.S. National Committee for Theoretical and Applied Mechanics (USNC/TAM), on behalf of the National Academies of Sciences, Engineering and Medicine invites recent graduates who obtained their PhD degree in the United States, and defended their dissertation between July 20, 2023 and July 19, 2024, to virtually present a concise summary of their PhD thesis to a mechanics audience. The competition will allow new scholars to showcase their research and findings to a broader audience.

The subject must be in a **mechanics** related area, including theoretical, experimental, and computational methods. Mechanics, including computational mechanics, is a science that combines mathematics, physics, and engineering to provide mathematical statements to describe the behavior of fluids, materials and structures.

To determine eligibility to **THE USNC/TAM 5MT**, the applicants must fill in an application form starting on **Friday, July 19, 2024** (at 12 AM ET) and ending on **Friday, August 9, 2024** (at 12 AM ET) using the link below. Once notified, to be accepted in the competition, eligible applicants must submit a recorded video presentation that is no longer than five minutes. Additional instructions will be provided in the notification email.

Please check [here](#) the competition rules and grading criteria.

Notified applicants are invited to upload a video of their presentation using the link included in their eligibility email starting **Monday, July 26, 2024** (at 12 AM ET). Submissions will no longer be accepted after **Friday, August 16, 2024** (at 12 AM ET), or after 100 video submissions have been received, whichever comes first.

[APPLY](#) TO THE USNC/TAM 5MT



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2024 – COMPETITION TIMELINE (all times are ET)

Friday, July 19, 12 AM: Application submissions OPEN.

Friday, July 26, 12 AM: Video submissions OPEN (to notified applicants).

Friday, August 9, 12 AM: Application submissions CLOSE.

Friday, August 16, 12 AM: Video submissions CLOSE.

Friday, September 6, 12 AM: Top 10 finalists notified.

THE USNC/TAM **5MT** Virtual Thesis Competition and Awards Ceremony:

Friday, September 20, 3-5 PM

REGISTER TO THE USNC/TAM **5MT**



Finalists Awards*:

- First prize: \$2,000
 - Second prize: \$1,500
 - Third prize: \$1,000
 - People's choice: \$500
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*As stipulated by the IRS, 30% of the prize amount will be withheld by the Academies if the awardee is not a U.S. citizen or U.S. resident.

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1. Goal

- Promote research and communication excellence among recent PhD graduates in a **mechanics related area**

2. Objective

- Provide an opportunity for recent PhD graduates to **virtually** present to a general audience:
 - a **concise**, summary of their PhD theses.
 - limited to **5 minutes**

3. Eligibility Requirements

- **PhD Graduates within one year (or less) from dissertation defense**
- **Mechanics related area.** Mechanics, including computational mechanics, is a science that combines mathematics, physics and engineering to provide mathematical statements to describe the behavior of materials and structures
- Applicants must submit a request form to enter the competition
- Upon checking the eligibility requirements, an email will be sent applicants with video upload instructions

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Competition Rules and Grading Criteria

Rules:

- Only eligible applicants notified by email can participate in the competition. Check eligibility requirements [here](#).
- The video presentations are limited to 5 minutes. **Competitors exceeding 5 minutes are disqualified.**
- The presentation starts when a presenter begins the presentation verbally (excluding the title slide), not with the start of the video.
- The video presentation ends when the presenter concludes and stops his verbal presentation.
- The video presentation must begin with the USNC/TAM 5MT PowerPoint title/slide from the competition acceptance email.
- The video must be filmed on a plain background, using a single camera angle.
- Embedded audio/video links or files are not permitted within the video recording.
- Video submissions must be in MP4 format only. **Other video formats will not be accepted.**
- Video submissions are accepted only via the link provided in the acceptance email.
- Judges will focus on the ability of the presenter to communicate research to a mechanics audience, delivery, and quality of THE USNC/TAM 5MT PowerPoint slides.
- Specific areas to be judged are included in the attached grading rubric.
- The decision of the adjudicating USNC/TAM 5MT committee is final. **Appeals will not be accepted.**
- Ten finalists will be selected to enter the **virtual** competition.



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GRADING RUBRIC

USNC-TAM Id. (assigned by competition)	
Competitor's Full Name	
U.S. University/College	
PhD Principal Adviser's Full Name	
Presentation Title	

CRITERIA	POINTS	ATTAINMENT	POINTS
Presentation Does Not Meet Criteria	1	Clarity of Literature Review/Research impact	/10
Presentation has Major Weaknesses	2	Clarity of Research Approach/Strategy	/10
Presentation has Some Weaknesses	3	Clarity of Research Findings	/10
Presentation has Minor Weaknesses	5	Clarity of Conclusions/Future Work	/10
Presentation is Good	7	Quality of Delivery/Communication	/10
Presentation is Very Good	8	Adequacy of Language in Delivery	/10
Presentation is Exceptional (one of a kind)	10	Quality of Presented Slides	/10
		Level of Enthusiasm Conveyed to Audience	/10
		TOTAL	/80