

# Student Research Talks (StReeTs)

George Mason University

## h-cobordisms and the Whitney Trick

**Quincy Frias**

George Mason University

### Abstract

Abstract: In 1966, Stephen Smale won the fields medal in no small part due to his h-cobordism theorem. This theorem gives a condition on which two manifolds are isomorphic (in the relevant category), provided their dimensions are large enough. This talk will go over some of the mathematical context behind the proof, including the famous Whitney trick that makes high dimensional topology surprisingly tractable (at least compared to four dimensions). If time permits, we will go into the s-cobordism theorem and Whitehead torsion.

Date: Friday, February 24<sup>th</sup>

Time: 2:30pm–3:20pm

Place: Exploratory Hall 4106 and Zoom (Meeting ID: 978 7872 4201)

**Pizza will be served at the presentation.**

For further information or for special accommodations (including dietary restrictions), please contact Michael Merkle or Aleyah Dawkins via email at [mmerkle@gmu.edu](mailto:mmerkle@gmu.edu) or [adawkin@gmu.edu](mailto:adawkin@gmu.edu) by Thursday.