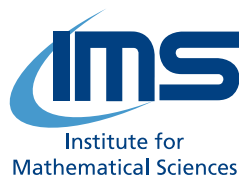


Jointly organized by



Institute of Advanced Studies

## Public Lecture

# Topological Deep Learning

Gunnar Carlsson

*Partially funded by the Ng Kong Beng Memorial Fund*

### Date and time

26 July 2022, 10–11am

Singapore (GMT+8)

25 July 2022, 7–8pm

Pacific Time (GMT -7)

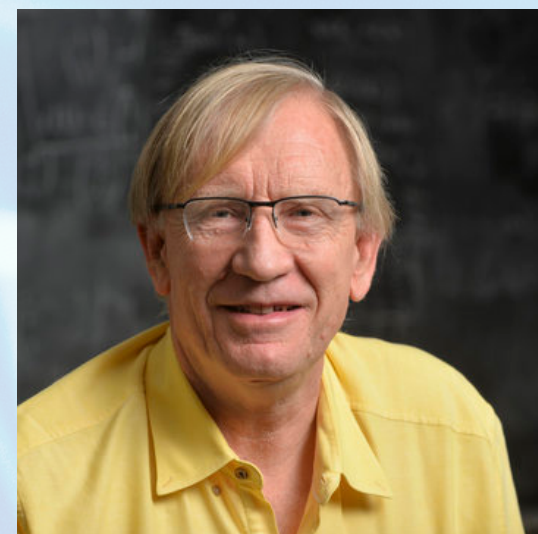
### About the talk

Deep learning is a very powerful methodology which can solve many AI problems. There are a number of problems with it, though, including a lack of transparency and a lack of generalizability from one data set to another. In addition, it often requires a great deal of data for training and can be very expensive computationally. In this talk, we will discuss some investigations into the behavior of deep learning, and suggest some approaches to deal with the problems mentioned above.

### Online via Zoom

### Registration

<https://tinyurl.com/IMSIIASPLJuly2022>



Gunnar Carlsson

Stanford University, USA

### About the speaker

Professor Carlsson is Professor Emeritus and Ann and Bill Swindells Professor at Stanford University. He received his PhD from Stanford University. His previous affiliations include the University of California, San Diego and Princeton University.

He is Fellow of the American Mathematical Society (2017). He held a Alfred P. Sloan Fellowship (1983-1987). He gave a Whittaker Colloquium at the University of Edinburgh, and Rademacher Lectures at the University of Pennsylvania in 2011. He gave a keynote lecture at the Inaugural conference for Computational Institute, University of Illinois, Urbana-Champaign in 2012.

He founded the AI INc. Ayasdi Inc. (2008) and UnBox AI (2019). His research interests include algebraic topology, algebraic K-theory, topology and number theory.

### Contact Information

Institute for Mathematical Sciences  
National University of Singapore  
3 Prince George's Park Singapore 118402  
[ims.nus.edu.sg](https://ims.nus.edu.sg)