

MATH-688

Reading group in applied topology I

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Cursus	Sem.	Type
Mathematics		Opt.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
Hours	28
Courses	14
TP	14
Number of positions	

Frequency

Only this year

Remark

Fall semester

Summary

In this reading group, we will work together through recent important papers in applied topology. Participants will take turns presenting articles, then leading a discussion of the contents.

Content

The field of applied topology is growing extremely rapidly, in terms of both the development of new theory and the elaboration of significant new applications. The goal of this reading group is to provide a framework in which to survey the literature efficiently, to ensure that all participants are aware of the most significant recent developments. PhD student participating in the course for credit must give two presentations of all or part of an article selected by the course coordinator.

Some articles studied last year:

<https://journals.aps.org/pre/abstract/V10.1103/PhysRevE.100.032305>

<https://www.mdpi.com/1099-4300/21/9/869/htm>

<https://arxiv.org/abs/1910.00960>

<https://arxiv.org/abs/1906.01507>

<https://arxiv.org/abs/1812.02139>

<https://arxiv.org/abs/1904.07403>

Following articles will be studied carefully and in detail:

<https://arxiv.org/pdf/2008.00063.pdf>

<https://arxiv.org/abs/2008.13697>

<https://arxiv.org/abs/2007.12213>

Keywords

Applied topology, topological data analysis