

MATH-802

**Optimization, interpolation and modular forms**

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Cursus	Sem.	Type
Mathematics		Opt.

Language of teaching	English
Credits	2
Session	
Exam	Project report
Workload	60h
<b>Hours</b>	<b>42</b>
Courses	14
Exercises	6
Project	22
<b>Number of positions</b>	

**Frequency**

Only this year

**Remark**

24-28.08.2020

**Summary**

This summer school will explore basic concepts as well as recent developments in optimization, interpolation, and modular forms. There will be short courses as well as several standalone lectures by invited researchers. The school is aimed toward master's and PhD students and early-stage postdocs.

**Content**

Main lectures:

Henry Cohn (MIT): Packing, coding, and ground states

David de Laat (TU Delft): Semidefinite programming hierarchies for packing and energy minimization

Danylo Radchenko (ETH Zürich) : Modular forms and their applications

Frank Vallentin (Universität zu Köln): Optimization for lattices, packings, and coverings

**Assessment methods**

Project report

**Resources****Websites**

- <https://www.epfl.ch/labs/tn/number-theory-tn/optimistic-summer-school/>