LMS UNDERGRADUATE SUMMER SCHOOL

Swansea University, 12–23 July 2021

## MINI-COURSE

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## Analytic inequalities

## Abstract

Starting from the simple arithmetic mean–geometric mean inequality, we shall discuss inequalities of Cauchy–Schwarz and Hölder type in increasingly general settings, culminating with the proof of a (case of the) famous theorem by Riesz and Thorin on the interpolation of linear operators.