Mini Course – The Restriction Conjecture

Lecturer: Shobu SHIRAKI

Department of Mathematics, Faculty of Science (PMF), University of Zagreb

Logistics

Dates	Wednesdays, 15 Oct – 12 Nov 2025 (5 weeks)
Time	May vary by week; see the schedule below.
Location	May vary by week; see the schedule below.
Audience	Master's level (everyone welcome).
Contact	shobu.shiraki@math.hr

Overview

Stein's restriction problem lies at the heart of modern harmonic analysis. This mini course offers an accessible introduction to the Fourier restriction problem, develops core tools, and highlights connections with geometric measure theory. We aim to provide a clear conceptual picture and a practical toolkit while clarifying its relationship with the Kakeya conjecture. The course is self-contained and intended for a broad audience–everyone is welcome.

Schedule (provisional)

Week	Topic	Date	Time	Location
1	Introduction	Wed, **15 Oct**	14:00–16:00	Room 109
2	Restriction Conjecture	Wed, **22 Oct**	14:00–16:00	Room 109
3	Stein–Tomas Theorem	Wed, **29 Oct**	14:00–16:00	Room 109
4	Kakeya Conjecture	Wed, **5 Nov**	14:00–16:00	Room 109
5	Restriction $\Rightarrow$ Kakeya	TBA	TBA	TBA

Dates and times are provisional and subject to change. For questions or requests, please contact shobu.shiraki@math.hr.