

MATH642

MATRIX TRANSFORMATIONS ON SEQUENCE SPACES II

SPRING 2011/12

INSTRUCTOR: Eberhard Malkowsky

TIMETABLE: Mondays 8–11

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ASSESSMENT: Project

PRE-REQUISITES: *Functional Analysis*: (Undergraduate level) Topological vector spaces, uniform boundedness principle, Banach–Steinhaus theorem, open mapping theorem, closed graph theorem

PRINCIPAL TEXTBOOK: A. Wilansky, *Summability through Functional Analysis*, Mathematics Studies **85** North–Holland, Amsterdam, New York, Oxford, 1984

PROGRAMME

WEEKS	SUBJECTS TO BE COVERED
1 & 2	Spaces of strongly summable and bounded sequences and their duals
3 & 4	Matrix transformations between those spaces
5 & 6	Spaces of Λ -strong convergent and bounded sequences and their duals
7 & 8	Matrix transformations between those spaces
Will be announced	Mid-term Exam
9 & 10	Mixed normed spaces and their duals
11 & 12	Matrix transformations between mixed normed spaces
13 & 14	Presentation of projects
Will be announced	Final Examination

SUGGESTED READING:

- W. Ruckle, *Sequence Spaces*, Pitman, London, 1981
- Selected research papers