

Cambridge University Press

0521339227 - Triangulated Categories in the Representation Theory of Finite Dimensional Algebras

Dieter Happel

Table of Contents

[More information](#)

TABLE OF CONTENTS

Preface

CHAPTER I:	Triangulated categories	1
	1. Foundations	1
	2. Frobenius categories	10
	3. Examples	24
	4. Auslander-Reiten triangles	31
	5. Description of some derived categories	43
CHAPTER II:	Repetitive algebras	57
	1. t -categories	57
	2. Repetitive algebras	59
	3. Generating subcategories	70
	4. The main theorem	74
	5. Examples	89
CHAPTER III:	Tilting theory	93
	1. Grothendieck groups of triangulated categories	95
	2. The invariance property	103
	3. The Brenner-Butler Theorem	113
	4. Torsion theories	118
	5. Tilted algebras	133
	6. Partial tilting modules	141
	7. Concealed algebras	149
CHAPTER IV:	Piecewise hereditary algebras	152
	1. Piecewise hereditary algebras	152
	2. Cycles in $\text{mod } k\bar{A}$	160
	3. The representation-finite case	164
	4. Iterated tilted algebras	171
	5. The general case	175
	6. The Dynkin case	180
	7. The affine case	188
CHAPTER V:	Trivial extension algebras	196
	1. Preliminaries	196
	2. The representation-finite case	199
	3. The representation-infinite case	201
References		203
Index		207