

Contents

Chapter 1. Introduction	1
Chapter 2. Quantum cluster algebras	15
Chapter 3. Iterated skew polynomial algebras and noncommutative UFDs	29
Chapter 4. One-step mutations in CGL extensions	39
Chapter 5. Homogeneous prime elements for subalgebras of symmetric CGL extensions	49
Chapter 6. Chains of mutations in symmetric CGL extensions	59
Chapter 7. Division properties of mutations between CGL extension presentations	69
Chapter 8. Symmetric CGL extensions and quantum cluster algebras	75
Chapter 9. Quantum groups and quantum Schubert cell algebras	97
Chapter 10. Quantum cluster algebra structures on quantum Schubert cell algebras	105
Bibliography	115
Index	117