

Contents

Chapter 1. Introduction	1
Chapter 2. Preliminaries	5
2.1. Skew-symmetric cluster structures of geometric type and compatible Poisson brackets	5
2.2. Poisson–Lie groups	6
Chapter 3. Main results and the outline of the proof	11
3.1. Combinatorial data and main results	11
3.2. The basis	14
3.3. The quiver	17
3.4. Outline of the proof	25
Chapter 4. Initial basis	29
4.1. The bracket	29
4.2. Handling functions in \mathbb{F}	31
4.3. Proof of Theorem 3.4: First steps	35
4.4. Proof of Theorem 3.4: Final steps	53
Chapter 5. The quiver	71
5.1. Preliminary considerations	71
5.2. Diagonal contributions	73
5.3. Nondiagonal contributions	75
Chapter 6. Regularity check and the toric action	83
6.1. Regularity check	83
6.2. Toric action	85
6.3. Proof of Proposition 3.6	86
Chapter 7. Proof of Theorem 3.3(ii)	89
7.1. Proof of Theorem 3.12 and its analogs	89
7.2. Handling adjacent clusters	96
7.3. Base of induction: The case $ \Gamma_1^r + \Gamma_1^c = 1$	97
7.4. Auxiliary statements	99
Bibliography	103