

# Contents

Chapter 1. Introduction	1
Chapter 2. Preliminaries	7
2.1. Contiguity operators	7
2.2. Degenerate relations	8
2.3. A complete system of representatives of $G \setminus \mathbf{Z}^3$	13
Chapter 3. Derivation of special values	17
3.1. Example 1: $(k, l, m) = (0, 1, 1)$	17
3.2. Example 2: $(k, l, m) = (1, 2, 2)$	17
3.3. Example 3: $(k, l, m) = (1, 2, 3)$	19
Chapter 4. Tables of special values	21
4.1. $m = 1$	21
4.2. $m = 2$	21
4.3. $m = 3$	23
4.4. $m = 4$	32
4.5. $m = 5$	54
4.6. $m = 6$	59
Appendix A. Some hypergeometric identities for generalized hypergeometric series and Appell-Lauricella hypergeometric series	87
A.1. Some examples for generalized hypergeometric series	87
A.2. Some examples for Appell-Lauricella hypergeometric series	90
Acknowledgments	93
Bibliography	95