

Contents

Introduction	1
Part 1. Part 1: Global periods: Fourier coefficients of half-integer weight forms	9
Chapter 1. Preliminaries	11
Chapter 2. Classical and automorphic forms of half-integer weight	21
Chapter 3. Fourier coefficients of modular forms of half-integer weight	27
Part 2. Part 2: Interpolation of the Fourier coefficients	47
Chapter 4. Preliminaries and the basic formula	49
Chapter 5. $\tilde{\Lambda}$ -adic Waldspurger packets, and non-vanishing of the $\tilde{\Lambda}$ -adic lift.	61
Chapter 6. Specialization to trivial character, and the trivial zero	63
Part 3. Part 3: Local periods: test vectors	67
Chapter 7. Preliminaries and statement of results	69
Chapter 8. K -types and the principal series	77
Chapter 9. The depth zero supercuspidal representations of $GL_2(\mathbf{Q}_p)$.	85
Bibliography	93