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Nota di contenuto	Foreword; Preface; Contents; On Local γ -Factors; 1 Introduction; 2 Basic Properties of Local γ -Factors; 2.1 Multiplicativity; 2.2 Stability; 2.3 Remarks; 3 Local Converse Theorems; 3.1 The case of $GL_n(F)$; 3.2 A conjectural LCT; 3.3 The case of $SO_{2n+1}(F)$; 4 Poles of Local γ -Factors; 4.1 The case of $G = SO_{2n+1}$; 4.2 Other classical groups; Deligne Pairings over Moduli Spaces of Punctured Riemann Surfaces; 1 WP Metrics and TZ Metrics; 2 Line Bundles over Moduli Spaces; 3 Fundamental Relations on Mg_N ' Algebraic Story; 4 Fundamental Relation on Mg_N - Arithmetic Story; 5 Deligne Tuple in General 6 Degeneration of TZ Metrics: Analytic StoryReferences; Vector Bundles on Curves over C_p ; 1 Introduction; 2 Complex Vector Bundles; 3 Fundamental Groups of p -Adic Curves; 4 Finite Vector Bundles; 5 A Bigger Category of Vector Bundles; 6 Parallel Transport on Bundles in $Bxcp$; 7 Working Outside a Divisor on Xcp ; 8 Properties of Parallel Transport; 9 Semistable Bundles; 10 A Simpler Description of $Bxcp$ D; 11 Strongly Semistable Reduction; 12 How Big are our Categories of Bundles?; 13 Representations of the Fundamental Group; 14 Mumford Curves; References Absolute CM-periods -- Complex and p -Adic1 Introduction; 2

Notation; 2.1 Complex Theory; 2.2 p-Adic Theory; References; Special Zeta Values in Positive Characteristic; 1 Introduction; 2 Carlitz Theory; 3 Anderson-Thakur Theory; 4 t-Motives; 5 Algebraic Independence of the Special Zeta Values; References; Automorphic Forms & Eisenstein Series and Spectral Decompositions; Day One: Basics of Automorphic Forms; 1 Basic Decompositions; 1.1 Langlands Decomposition; 1.2 Reduction Theory: Siegel Sets; 1.3 Moderate Growth and Rapidly Decreasing; 1.4 Automorphic Forms; 2 Structural Results
 2.1 Moderate Growth and Rapid Decreasing 2.2 Semi-Simpleness; 2.3 3-Finiteness; 2.4 Philosophy of Cusp Forms; 2.5 L2-Automorphic Forms; Day Two: Eisenstein Series; 3 Definition; 3.1 Equivalence Classes of Automorphic Representations; 3.2 Eisenstein Series and Intertwining Operators; 3.3 Convergence; 4 Constant Terms of Eisenstein Series; 5 Fundamental Properties of Eisenstein Series; Day Three: Pseudo-Eisenstein Series; 6 Paley-Wiener Functions; 6.1 Paley-Wiener Functions; 6.2 Fourier Transforms; 6.3 Paley-Wiener on p; 7 Pseudo-Eisenstein Series; 8 First Decomposition of $L_2(G(F)\backslash G(A))$
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Sommario/riassunto

Mathematics is very much a part of our culture; and this invaluable collection serves the purpose of developing the branches involved, popularizing the existing theories and guiding our future explorations. More precisely, the goal is to bring the reader to the frontier of current developments in arithmetic geometry and number theory through the works of Deninger-Werner in vector bundles on curves over p-adic fields; of Jiang on local gamma factors in automorphic representations; of Weng on Deligne pairings and Takhtajan-Zograf metrics; of Yoshida on CM-periods; of Yu on transcendence of specia
