Contents

Par	Part I Introduction to the Study of the Elliptic Modular Functions			
1	On t	he invariants of the binary biquadratic form	3	
	1.1	The form $f(z_1, z_2)$ and its irrational invariants	3	
	1.2	The irrational invariants A, B, C of the form f	4	
	1.3	Behavior of the A, B, C upon varying the sequence of factors of f	5	
	1.4	Equivalence of two forms with the same sequence of factors. First		
		canonical form of f	6	
	1.5	The equivalence of a form f with itself	8	
	1.6	The equivalence of two forms with arbitrary factor sequence	9	
	1.7	The rational invariants of the form f	9	
	1.8	The rational invariants in explicit form	10	
	1.9	The invariants g_2 , g_3 and the absolute invariant J	11	
	1.10	The second canonical form of f	12	
	1.11		13	
		Third conical form of f	14	
	1.13	More on the third canonical form. Connection to the theory of the		
		regular solids	15	
	1.14	Normal forms of the elliptic integral of the first kind	17	
	1.15	Naming the normal forms. History	18	
2	On t	he periods of the elliptic integral of the first kind	21	
	2.1	Pairs of primitive periods of the integral of the first kind	21	
	2.2	The periods as invariants. Dependency on the rational invariants.		
		Normalization of the periods	23	
	2.3	Setting up the differential equation for the normalized periods	25	
	2.4	Fundamental theorems concerning the dependency of the normalized		
		periods on <i>J</i>	27	
	2.5	Choice of a special primitive period-pair	29	
	2.6	Dissection of the <i>J</i> -plane. Significance of the determinations of the		
		previous paragraph	30	
	2.7	Approach to the neighborhood of a singular point	32	



	2.8	Preliminary determination of the numbers k_1, k_2	34
	2.9	Carrying though the investigation for the singular point $J = 0$	36
	2.10	Carrying the investigation through for the singular point $J = 1 \dots \dots$	38
	2.11	Determinations for the neighborhood of $J = \infty$ and associated	-
		calculation of Ω_2	40
	2.12	Calculation of the limiting value of Ω_1 for $J = \infty$	41
		Disposal of the singular point $J = \infty$. Historical remarks	45
	2.14	Branching of the periods ω_1, ω_2 over the <i>J</i> -plane	46
	2.15	The periodquotient ω as a function of J	48
		Differential equation of the third order for $\omega(J)$. The s-functions	49
_		-	
3		cerning certain conformal mappings and the triangle functions	
		ng from them	53
	3.1	Replacement of the Riemann surface occurring by simpler figures \ldots .	53
	3.2	Figure for the representation of the connection between λ and J	56
	3.3	Carrying the λ -plane onto the surface of the sphere	58
	3.4	Relation to the second chapter	59
	3.5	Figures for illustrating the connection between μ and J	60
	3.6	The mapping of a circular arc triangle onto the halfplane of J	62
	3.7	The relation of λ to μ illustrated through figures	65
	3.8	The circle-relation. Theorems on circular arc triangles	68
	3.9	The symmetry with respect to a circle	71
	3.10	The law of symmetry. Direct and indirect circle-relatedness	74
	3.11	Significance of the law of symmetry for the function $\mu(J)$	75
	3.12	General investigation of the function-theoretic significance of the law	
		of symmetry	76
	3.13	Definition and fundamental properties of the triangle- or	
		s-functions	77
	3.14	Series developments for a branch of the <i>s</i> -function	78
	3.15	Differential equation of the third order for the <i>s</i> -function	79
	3.16	Assembly of the triangle functions already appearing	82
	3.17	Division of the triangle functions into kinds	84
	3.18	The <i>s</i> -functions of the first kind	85
		The <i>s</i> -functions of the second kind	89
	3.20	The <i>s</i> -functions of the third kind	89
	3.21	The triangle figures associated to $\omega(\lambda)$ and $\omega(J)$	92
4	Deve	elopment of the definitions and fundamental problems of a theory of	
		elliptic modular functions	97
	4.1	The Legendre relation	98
	4.2	The rational invariants g_2 , g_3 , Δ as functions of the periods ω_1 , ω_2	99
	4.3	Functional determinants of the forms g_2 , g_3 , Δ	100
	4.4	The periods of integrals of the second kind as functions of $\omega_1, \omega_2 \dots$	102
	4.5	Calculation of the Hessian determinant $H(\log \Delta)$	
	4.6	Mappings effected by $\omega(J)$ and $\zeta(J)$. Icosahedral and modular	
	-	equation	105

	4.7	Form-theoretic comparison of the icosahedral and modular	
		equations	106
	4.8	Further comparison of the icosahedral and modular forms $\ldots \ldots \ldots$	108
	4.9	Analogy in the function-theoretic treatment of the respective form	
		problems	
		Algebraic equations with a variable parameter	
	4.11	Transfer of algebraic concepts to transcendental equations	112
	4.12	Group-theoretic comparison of the icosahedral and modular	
		equations	
		Formulation of the general fundamental task	
		The group-theoretic fundamental problem	
		The function-theoretic fundamental problem	
	4.16	The elliptic modular forms	120
5	Anal	ytic representations for doubly periodic functions and modular	
		ıs	123
	5.1	Deviations of Terminology	123
	5.2	The functions $\varphi(u)$ and $\varphi'(u)$. Doubly periodic functions	
	5.3	Analytic representations for the functions $\wp(u)$, $\wp'(u)$	126
	5.4	Doubly infinite series for g_2 and g_3	
	5.5	Simply infinite series for g_2 , g_3 and the periods η_1 , η_2	
	5.6	Product representation of the discriminant Δ . The modular equation	
		in explicit form	130
	5.7	The function $\sigma(u \omega_1,\omega_2)$	
	5.8	Product representation of the σ -function	
	5.9	Representation of doubly periodic functions by $\sigma(u)$	
	5.10	The functions $\sigma_{\lambda,\mu}(u \omega_1,\omega_2)$	
	5.11	Transition to the ϑ -functions	
Par	t II Tı	reatment of the Group-Theoretic Fundamental Problem	
1	Of th	ne linear substitutions of one variable and their geometric	,
		pretation	141
	1.1	Division into kinds of the linear substitutions of one variable	141
	1.2	Geometrical interpretation of the substitutions with separately	
		situated fixed points for special positions of the latter	143
	1.3	Projection of the figures obtained onto the sphere	145
	1.4	Orbit curves and level lines in the case of a general position of the	
		fixed points	147
	1.5	Disposal of the parabolic substitution	
	1.6	Concerning the substitutions arising from the <i>s</i> -functions of the first	
		and second kind	151
	1.7	The substitutions of the <i>s</i> -function $s(\frac{1}{2}, \frac{1}{3}, \frac{1}{7}; I)$	152
	1.8	The kinds of modular substitutions taken from the modular division \dots	154
	1.9	A preliminary arithmetical consideration of the modular	
	1.3	11 premining artifilited at consideration of the modular	

	1.10	The concept of equivalence and of the fundamental domain in for a	
	1.11	group of linear substitutions	157
		and parabolic cases	159
	1.12	Continuation: Case of an elliptic substitution <i>V</i> . Arbitrariness of the	100
		shape of the fundamental domain of a cyclic group	162
	1.13	Special explanations for the elliptic modular substitutions	164
	1.14	Continuation: Determinations for the parabolic and hyperbolic	
	1.15	substitutions	166
	1.15	The substitutions of the variable z , which signify indirect	
	1 10	circle-relations	168
	1.16	Extension of a cyclic group of non-loxodromic substitutions of the first	
	1 17	kind by associated reflections	
	1.17	Fundamental domains for the extended groups just considered	173
2		modular group and its corresponding division of the ω -halfplane \ldots	179
	2.1	Preliminary results on the fundamental domain of the modular	
		group	179
	2.2	Closer consideration of the fundamental domain. Negative part of the	
		proof	
	2.3	Continuation: positive part of the proof	182
	2.4	Simply and multiply equivalent points	185
	2.5	The substitutions S and T as generators of the modular group	187
	2.6	Covering of the ω -halfplane with equivalent circular arc triangles with	100
	2.7	angles $\pi/3$, $\pi/3$, 0	
	2.8	Extension of the modular group by reflections	
	2.9	The fundamental domain of the extended modular group	193
		modular groups	196
	2.10	The generating operations of the extended group	197
	2.11	Transformations of the modular division into itself. Domains, which	
		stream out from a rational point	199
	2.12	Projection of the modular division into a rectilinear figure of	
		triangles	202
3	The	integral binary quadratic forms and the conjugation of modular	
		titutions	207
	3.1	Naming the quadratic forms	
	3.2		208
	3.3	Representation of forms of negative determinant and their	
			209
	3.4	The number of the substitutions, which effect the equivalence of two	
	-	· · · · · · · · · · · · · · · · · · ·	211
	3.5	External characterization of reduced forms. Finiteness of the class	
		number	211
	3.6		214

	3.7	First approach to the transformation of a form of positive determinant	
	3.8	into itself	215
	3.9		216
	3.9	Production of all substitutions, which transform a form of positive	
	2.10	determinant into itself	218
	3.10	Position in the ω -halfplane of a semicircle representing a form of	
	0.11	positive determinant	219
	3.11	The reduced forms and their periods. Disposal of the problem of	
		equivalence	220
	3.12	External characterization of reduced forms. Finiteness of the class	
		number	221
	3.13	Existence proof for the smallest positive solution T , U of the Pell	
		equation	222
		Transformation of the modular substitutions	
		Conjugacy in the case of elliptic and parabolic substitutions	
	3.16	Conjugacy of hyperbolic substitutions	226
	3.17	Conjugacy of the cyclic subgroups contained in the modular group \dots	228
4	Diec	ussion of a special subgroup contained in the modular group	221
*			
	4.1	Definition of the subgroups Γ' and $\overline{\Gamma}'$	231
	4.2	The fundamental domain for $\overline{\Gamma}'$	232
	4.3	The generators of $\overline{\Gamma}'$ and Γ'	
	4.4	The simplest fundamental domain for Γ'	
	4.5	Approach to relating the subgroup Γ' to the total group Γ	238
	4.6	System of representatives and index for the subgroup $\Gamma'.$ Notation Γ_6	
		for Γ'	
	4.7	The Γ_6 as distinguished subgroup	243
	4.8	The finite group G_6 which corresponds to Γ_6 . Γ_2 and the three	
		conjugates Γ_3	244
	4.9	The fundamental domains F_3 of the conjugate Γ_3	246
	4.10	Renewed consideration of the fundamental domain F_6 of	
		subgroup Γ_6	250
	4.11	Folding of the fundamental domain of F_6 into a dihedrally divided	
		sphere. Relation of the dihedral division to the modular division	251
	4.12	Explaining the group G_6 by means of the dihedally divided sphere.	
		Regularity of the fundamental domain F_6	254
	4.13	Folding of the fundamental domains F_3 into simply covered planes.	
		Irregularity of the F_3	255
	4.14	Symmetry of the domains F_3 . The regular-symmetric domain F_6	258
		Preliminary remarks on the function-theoretic significance of the	
		subgroup Γ_6	260
_	_		
5		eral approach for the treatment of the subgroups of the modular	200
		p	
	2	and system of representatives for a given stingroup	703

	5.2	Production of a fundamental domain F_{μ} belonging to a given	
	5.3	subgroup Γ_{μ}	265
	5.5	subgroup Γ_{μ} . Generation of Γ_{μ}	007
	5.4	Transformation of subgroups. Conjugate and distinguished	267
	5.4	1	260
	5.5	The fundamental polygons of conjugate and distinguished	200
	0.0	subgroups	271
	5.6	The finite groups G_{μ} and $G_{2\mu}$, which correspond to a distinguished	211
	0.0	subgroup Γ_{μ}	272
	5.7	General viewpoint for the decomposition of the groups G_{μ} into their	212
		subgroups	273
	5.8	Significance of the previous paragraph for our group-theoretic	210
			276
	5.9	Bending together the fundamental domain F_{μ} to a closed surface.	
		Genus p of a subgroup Γ_{μ} . Relation to the ω -halfplane	278
	5.10	Special investigation for the distinguished subgroups Γ_{μ} . Regularity	
		and symmetry of the associated surfaces F_{μ}	281
	5.11	Partial regularity or symmetry of the surfaces F_{μ} for relatively	
		distinguished subgroups Γ_{μ}	284
	5.12	Rules for the calculation of the genus p of a subgroup Γ_{μ} . Diophantine	
		equation for distinguished subgroups	285
6	Defi	nition of all subgroups of the modular group by means of the	
•			289
	6.1	Methods of defining subgroups by means of fundamental polygons or	200
			289
	6.2	Production of a mapping between the divided surface F_{μ} and the	
		ω -halfplane	291
	6.3	Spreading out the surface F_{μ} in the ω -halfplane. Proof of the branching	
			293
	6.4	The spherical nets of the regular solids and the distinguished	
		subgroups of the modular group of genus $p = 0$	295
	6.5	The subgroups $\Gamma_{\{n\}}$ corresponding to the functions $s(\frac{1}{2}, \frac{1}{3}, \frac{1}{n}; J)$	298
	6.6	Significance of $\Gamma_{\{n\}}$ for the solution of the group-theoretic fundamental	
		problem. Division of the subgroups into classes	301
	6.7	Discussion of a special distinguished subgroup of the sixth class of	
		index 72	304
	6.8	Definition of a special distinguished subgroup of the seventh class of	
		index 168	
	6.9	The finite group G_{168} . The subgroups G_7 and G_{21} of G_{168}	
		The 28 symmetry lines of F_{168} and the subgroups G_3 and G_6 of G_{168}	
		The 21 shortest lines of F_{168} and the subgroups G_8 , G_4 , G_2 in G_{168} The four-groups G_4 and octahedral groups G_{24} in G_{168}	

7	The	congruence groups of the $n^{ ext{th}}$ level contained in the modular group \dots	323
	7.1	The principal congruence group of the n^{th} level	
	7.2	The modular substitutions considered modulo n . The group $G_{\mu(n)}$	
		belonging to $\Gamma_{\mu(n)}$	325
	7.3	The homogenous modular substitutions and their groups. The	
		homogenous principal congruence groups of n^{th} level	327
	7.4	Calculation of the index $\mu(n)$ of the principal congruence group of n^{th}	
		level	329
	7.5	Comparison of $\Gamma_{\{n\}}$ and the principal congruence groups $\Gamma_{\mu(n)}$.	
		Principal congruence groups of the previous chapter	
	7.6	Generalities on congruence groups of n^{th} level	
	7.7	An important principle of group theory	335
	7.8	Illustration of the developments of the previous paragraph by the G_{72}	
	7.9	belonging to the sixth level	337
	7.9	Reduction of the problem of the decomposition of the groups $G_{\mu(n)}$,	0.40
	7 10	resp. $G_{2\mu(n)}$. History	
		The congruence character of subgroups of the n^{th} class. Range of the	342
	1.11	congruence groups	345
		congruence groups	343
8	The	cyclic subgroups in the groups $G_{rac{q(q^2-1)}{2}}$, $G_{q(q^2-1)}$ and $\overline{G}_{q(q^2-1)}$	
		nging to the prime level q	
	8.1	The Galois imaginary numbers	348
	8.2	Imaginary form of the group $G_{q(q^2-1)}$	351
	8.3	The cyclic subgroups G_q of order q	
	8.4	The cyclic subgroups $G_{\frac{q-1}{2}}$ of order $\frac{q-1}{2}$	354
	8.5	The cyclic subgroups $G_{\frac{q+1}{2}}$ of order $\frac{q+1}{2}$	357
	8.6	The totality of cyclic subgroups. Preliminary reference to the surface	001
	0.0	$F_{q(q^2-1)}$	359
	0.7		
	8.7	The cyclic subgroups of the homogeneous $G_{q(q^2-1)}$	
	8.8	Cyclic subgroups of $\overline{G}_{q(q^2-1)}$ for the case $q = 4h+1$	
	8.9	Cyclic subgroups of $\overline{G}_{q(q^2-1)}$ for the case $q=4h-1$	365
	8.10	The symmetric transformations of the surface $F_{\frac{q(q^2-1)}{2}}$ into itself	366
9	Enui	meration of all non-cyclic subgroups of the group $G_{q(q^2-1)}$ belonging	
		ime level q	371
	9.1	The generating substitutions of a group $G_{\{n\}}$ belonging to an arbitrary	371
	0.1	number n	371
	9.2	Dyck's theorem on the generators of the groups holohedrically	0.1
		isomorphic with $G_{\{n\}}$	374
	9.3	Non-cyclic subgroups of $G_{q(q^2-1)}$ and $G_{q(q^2-1)}$, in which a cyclic G_q	
	-		276
	9.4	•	376 377

	9.5	Decomposition of the surface $F_{\frac{q(q^2-1)}{2}}$ into $\frac{q-1}{2}$ polygon wreaths 379
	9.6	The subgroups of dihedral type contained in $G_{q(q^2-1)}$
	9.7	Putting the polygon wreaths together into the surface $F_{\frac{q(q^2-1)}{2}}$
	9.8	The four-groups contained in $G_{\frac{q(q^2-1)}{2}}$
	9.9	The four-groups contained in $G_{\frac{q(q^2-1)}{2}}$
	9.10	Setting up and enumeration of the subgroups of icosahedral type
		contained in $G_{\underline{q(q^2-1)}}$
	9.11	General equations of condition for the order of a subgroup of
		G a
	9.12	Proof of the completeness of the given decomposition of $G_{\frac{q(q^2-1)}{2}}$ 394
	9.13	Simplicity of $G_{\underline{q(q^2-1)}}$. The Galois theorem. Concluding remarks 396
		2
Par	t III T	The Function-Theoretic Fundamental Problem
1	Four	ndation of Riemann's theory of algebraic functions and their
	integ	grals 401
	1.1	The many-sheeted Riemann surface F_n over a plane
	1.2	The algebraic functions belonging to the surfaces F_n
	1.3	The integrals belonging to the surface F_n under consideration 407
	1.4	The potentials belonging to the surface F_n under consideration 410
	1.5	Formulation of the existence theorem for an arbitrarily given Riemann
	1.0	surface F_n . Plan of the proof
	1.6	Solution of the boundary value problem for circular domains 415
	1.7	Description of the combination method in a special case
	1.8	Production of the potentials of the third and first kinds
	1.9	Two lemmas concerning potentials and integrals of the first kind 424
	1.10	The $2p$ potentials and the p integrals of the first kind of F_n
	1.11	The p normal integrals of the first kind of F_n
	1.12	The integrals, in particular the normal ones, of the second kind
		of F_n
2	Cont	inuation of Riemann's theory of algebraic functions 433
	2.1	The algebraic functions on a Riemann surface F_n of genus
		p = 0
	2.2	The algebraic functions on a Riemann surface F_n of genus $p = 1 \dots 435$
	2.3	The algebraic functions on a Riemann surface F_n of an arbitrary
		genus
	2.4	The functions φ of an F_n of higher genus
	2.5	The Riemann-Roch theorem
	2.6	Extension of the Riemann-Roch theorem to $p = 0$ and $p = 1$. A special
		application for $p > 1$
	2.7	The Brill-Nöther reciprocity theorem. The special functions

	2.8	Introduction of the language of analytic geometry	450
	2.9	The curve in the space R_v of v dimensions	451
	2.10	The equivalent point systems. Homogeneous coordinates. The	
		projective conception	
		The normal curves C_m	
		The rational and the elliptic normal curves in particular $\ \ldots \ \ldots$	
		The cases $p > 1$: the normal curve of the φ	
		The cases $p > 1$: the hyperelliptic case	
	2.15	Concluding remarks	461
3	Gene	eral solution of the function-theoretic fundamental problem	463
	3.1	Transformation of the polygons, resp., the closed surfaces F_{μ} , into	
		Riemann surfaces	464
	3.2	The functions $\omega(J)$ and $s(J)$ on the Riemann surface F_{μ}	
	3.3	The functions of $F_{\mu}^{(J)}$ considered in their dependency on ω	
	3.4	Character of the $z(\omega)$, $j(\omega)$ as the modular functions sought for	
		the Γ_u	471
	3.5	The full modular system of the subgroups Γ_{μ} and the associated	
		algebraic resolvents of the modular equation	474
	3.6	General investigations concerning the symmetric subgroups	
	3.7	Principal moduli and systems of moduli for symmetric subgroups	479
	3.8	Generalities concerning the moduli of conjugate and distinguished	
		subgroups	481
	3.9	Special considerations for the principal moduli and systems of moduli	
		of distinguished subgroups	484
	3.10	The Galois problems and their resolvents. Plan of the further	
		developments	488
4	The	modular functions belonging to the distinguished subgroups of	
		· · · · · · · · · · · · · · · · · · ·	491
	4.1	Fixing the Galois principal moduli and collection of associated	
		formulas	492
	4.2	Introduction of the modular forms belonging to the Galois principal	
		moduli	494
	4.3	Final determination of the modular forms λ_1, λ_2 , etc	496
	4.4	Relations between the modular forms λ_1, λ_2 , etc. and g_2, g_3 . The form	
		problem	498
	4.5	The singlevalued modular forms $\sqrt[3]{\Delta}$, $\sqrt[4]{\Delta}$ and $\sqrt[12]{\Delta}$	500
	4.6	Determination of the homogeneous subgroups belonging to the	
		modular forms λ_1, λ_2 , etc	505
	4.7	The six conjugate Γ_6 of the fifth level and the associated F_6	
	4.8	Setting up the resolvent of the sixth degree	512
	4.9	Details concerning the resolvent of the sixth degree. The question of	
		its affect	516
	4.10	The system of the moduli of the A. Affect of the resolvent of the twelfth	
		dograp	E17

	4.11 4.12	The five conjugate Γ_5 of the fifth level and the associated surface F_5 Setting up the resolvent of the fifth degree	520 522
5		ular functions, which let themselves be produced from the Galois	
		cipal moduli	525
	5.1	The distinguished Γ_{48} and Γ_{120} leading to hyperelliptic models	525
	5.2	The singlevalued modular functions $\sqrt[n]{\lambda}$, $\sqrt[n]{1-\lambda}$, etc	
	5.3	Enumeration of all congruence moduli contained among the	
		quantities $\sqrt[n]{\lambda}$, etc	531
	5.4	quantities $\sqrt[n]{\lambda}$, etc	534
	5.5	Behavior of φ, ψ, χ with regard to arbitrary modular substitutions	537
	5.6	Putting together additional congruence moduli	540
	5.7	The Galois systems to be built from the moduli considered	
	5.8	Setting up a few congruence groups of the sixth level	546
	5.9	The congruence moduli $y(\omega)$ and $x(\omega)$ of the sixth level	
	5.10	The 72 transformations of the C_3 into itself. Geometrical theorems	552
	5.11		554
6	The	systems of moduli z_lpha and A_γ of the seventh level \ldots	557
	6.1	Introduction of the modular forms z_{α} and the curve C_4	
	6.2	Geometrical significance of the points a , b , c on the C_4	
	6.3	The eight inflection triangles and the eight G_{21} . Choice of special z_{α}	
	6.4	Setting up the equation of the C_4 . The real trace	
	6.5	Setting up the 168 ternary substitutions. Additional remarks	
	6.6	The collineations of periods 2 and 3 contained in the G_{168}	
	6.7	The collineation groups G_6 , G_4 and G_{24} in the G_{168}	
	6.8	The three kinds of conic sections through eight points b	
	6.9	The tangent- C_3 of the C_4 and its distinguished system	
		Introduction of the system of moduli of the A_{γ}	578
	6.11	Relations between $\sqrt{\delta_{\nu}}$ and A_{γ} . The system of substitutions of the	
		A_{γ}	581
		The space curve of sixth order of the A_{γ}	584
	6.13	The C_6 of the A_{γ} as the conic vertices of a bundle of surfaces of the	
		second order	585
7		Galois problem of 168 th degree and its resolvents of the 8 th and 7 th	
	_	ees. — Concluding remarks	
	7.1	j - 1	589
	7.2	The ϕ , ψ , X as modular forms of the first level. The problem of the 168^{th} degree	591
	7.3	The problem of the A_{γ} . Mention of the extended problems	
	7.4	Setting up the function-theoretic resolvents of the eighth degree	
	7.5	Expressions of the moduli τ in the z_{α} . The form-theoretic resolvents of	550
		the eighth degree \dots	600
	7.6	The two form-theoretic resolvents of seventh degree	
	7.7	Representation of the moduli $ au$ belonging to the Γ_7 in terms of the	
		z_{α}	607

	7.8	The setting up and investigation of the form-theoretic resolvent of the seventh degree
	7.9	Comparison of the levels $q = 5$ and $q = 7$. Plan of the further
		development
	7.10	The significance of the modular functions for the theory of the general
		linearly-automorphic functions
Co	nmen	taries
1	Com	mentary by Richard Borcherds on Elliptic Modular Functions 619
2	Com	mentary by Jeremy Gray 625
3	Com	mentary by William Harvey on Automorphic Functions 629
4	Com	mentary by Barry Mazur631
5	Com	mentary by Series-Mumford-Wright
6	Com	mentary by Domingo Toledo
7	Com	mentaries by Other Mathematicians