

i.e. Sommer-Semester

- 1 Add. Ms. b. 191  
Continuous Groups. Van der Waerden. Göttingen S.S. 1929
- p. 1 Continuous Groups. 1. Introductory. Definition 1.  
2 Theorem 1. Proof  
5 Definition 2  
8 Continuity in Topological Space  
9 Definition 3  
10 1. The general linear group  
2. The special linear group  
3. The orthogonal group  
12 4. The projective group. 5. The general continuous group  
13 Definition 4  
14 6. Homeomorphic Groups  
20 2. General Theory of Continuous Groups. 2.1 Factor-  
Groups of topological groups. 2.11 Normal  
divisors and Factor-groups  
21 Definition 5  
26 2.12 Factor Groups of Closed Normal Divisors  
27 Theorem 2. Proof  
29 Theorem 3. Proof  
30 2.13 The projective group  
33 2.2 One-one and Many-one continuous isomorphisms  
35 Theorem 4  
36 Proof  
37 2.21 Continuous isomorphism in Kleinen  
38 2.22 The projective group once more  
41 2.3 Convex groups which are continuously isomorphic  
in Kleinen 2.31 Connectivity in Hausdorff's  
sense  
42 Definition 6  
43 2.32 Schreier's first theorem. Proof  
45 Theorem 6. Proof  
46 2.33 The covering-space. Definition 7

- p. 58 2.34 The covering space of a continuous group
- 59 Lectures on Class-Field Theory, by E. Artin, Göttingen,  
Feb 29 - March 2nd, 1932. (Ausgearbeitet von O. Taussky)  
First Lecture
- [66] (Multiplicative Congruences mod  $\tilde{m}$ )
- [68] (Def. Lemma. Proof. Theorem II)
- [70] (Proof. Th. 12. Proof)
- [86] (Footnote: The additive and multiplicative residue - class  
groups. Def. Th. 1. Proof of Th. 1. Th. 2. Th. 3. Proof.  
Th. 4. Proof)
- 87 (Th. 5. Def. Th. 6. Proof. Th. 7. Proof. Def. Th. 8. Proof. Def.)
- 88 (Th. 10. Proof. Th. 11. Remark)
- 97 Theorem I. Theorem II
- 99 Addendum
- 101 Second Lecture. Proof
- 103 Theorem I
- 105 Proof
- 109 Theorem II. Proof
- [114] (Proof that every number of  $\mathbb{Z}$  is the limit of a  $p$ -ad  
convergent sequence of numbers of  $K$ )
- 133 Definition of a class-corpus
- 137 Third Lecture. Proof
- 139 The Correspondence theorem
- 141 Proof
- 143 Proof
- 145 Proof
- ? 169  $p$ -adic extensions of an algebraic number corpus  $K$ . Def. 1. Def. 2.  
Th. 1. Th. 2. Th. 3
- [170] (Cor. to Th. 3)
- 171 Th. 4. Def. 3. Th. 5. Th. 6. Th. 7
- 173 Theorem 8. Proof
- 175 Def. 4. Th. 9. Th. 10



2 Add. Ms. 6. 191

- ? p- 177 2. The integers of  $K_p$ . Def. 5. Ch. 11. Ch. 12. Def. 6. Ch. 13
- ? 179 3. The ideals of  $K_p$ . Ch. 14
- 181 Ch. 15. Ch. 16
- 183 Ch. 17. Ch. 18. Proof. Ch. 19
- [184] Valuation Functions. Example
- ? 185 4.  $K_p$  is closed w.r. to the  $p$ -ad limit process. Ch. 20. Def. 7. Def. 8. Def. 9
- 187 Proof of Ch. 21
- 189 Ch. 22. Proof
- [190] (Applications)
- ? 191 5. The residue classes mod  $p^h$  in  $K_p$ . Ch. 23. Proof. Ch. 24.  
6.  $p$ -ad convergent series in  $K_p$ . Def. 10.
- 193 Ch. 25. Def. 11. Ch. 26. Def. 12. Ch. 27
- 195 7.  $p$ -ad extensions for relative Galois corpora. Ch. 28
- 197 Proof
- 205 Def. 13. Ch. 29. Proof

annotations in another hand: pp. 2, 42, 55, [58], [60], [66], [68], 69,  
[70], 71, [72], 73, [74], 85, [86], 87, [88], 89, [90], 91, [94], 99, [114], [116],  
119, 127, [128], [142], 143, [152], 155, [166], [168], 169, [170], [184], [186],  
[188], 189, [190], [192], 197, [200], 201, [202], [207]