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SELECTED WORKS OF
**LIPMAN
BERS**
PAPERS ON COMPLEX ANALYSIS

Part 1

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American Mathematical Society
Providence, Rhode Island

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8. with L. Nirenberg, <i>On a representation theorem for linear elliptic systems with discontinuous coefficients and its applications</i> , Convegno Internazionale sulle Equazioni Derivate e Parziale, Agosto 1954, Trieste, pp. 111–140.	115
9. with L. Nirenberg, <i>On linear and non-linear elliptic boundary value problems in the plane</i> , Convegno Internazionale sulle Equazioni Derivate e Parziale, Agosto 1954, Trieste, pp. 141–167.	145
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11. <i>An outline of the theory of pseudoanalytic functions</i> , Bull. Amer. Math. Soc. 62 (1956), 291–331.	197
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14. <i>Simultaneous uniformization</i> , Bull. Amer. Math. Soc. 66 1960, 94–97.	267
15. <i>Spaces of Riemann surfaces as bounded domains</i> , Bull. Amer. Math. Soc. 66 (1960), 98–103 and 67 (1961), 465–466.	271
16. with L. V. Ahlfors, <i>Riemann's mapping theorem for variable metrics</i> , Ann. of Math. 72 (1960), 385–404.	279
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18. <i>Completeness theorems for Poincaré series in one variable</i> , Proc. Internat. Symp. on Linear Spaces, Jerusalem, 1960, pp. 88–100.	309
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26. <i>Automorphic forms and Poincaré series for infinitely generated Fuchsian groups</i> , Amer. J. Math. 87 (1965), 196–214.	405
27. <i>Automorphic forms and general Teichmüller spaces</i> , Proc. Conf. on Complex Analysis (Minneapolis, 1964), Springer, 1965, pp. 109–113.	425
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32. <i>On boundaries of Teichmüller spaces and on kleinian groups: I</i> , Ann. of Math. 91 (1970), 570–600.	499
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37. <i>Eichler integrals with singularities</i> , Acta Math. 127 (1971), 11–22.	55
38. <i>Uniformization, moduli, and Kleinian groups</i> , Bull. London Math. Soc. 4 (1972), 257–300. Also available from the Amer. Math. Soc. as a videocassette.	67
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40. <i>Fiber spaces over Teichmüller spaces</i> , Acta Math. 130 (1973), 89–126.	119
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42. <i>Spaces of degenerating Riemann surfaces</i> , in Discontinuous Groups and Riemann Surfaces, Ann. of Math. Studies 79, Princeton Univ. Press, 1974, pp. 43–55.	165
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44. <i>Automorphic forms for Schottky groups</i> , Advances in Math. 16 (1975), 332–361. Also appeared in Surveys in applied Mathematics (Proc. First Los Alamos Sympos. Math. in Natural Sci., Los Alamos, N.M., 1974), Academic Press, New York, 1976, pp. 39–68.	183