Corrigenda and Addenda.

On the strong summability of the derived Fourier series
 and its conjugate series. Math. Zeitschr. vol. 56, pp. 280—288.

By

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1. On page 283, line 9: Add $o(1)$ on the right hand side of the inequality and in line 13 add $o(n)$.

2. On page 283 formula (3.4): Read

$$P = \frac{1}{2\pi} \left(\int_0^{1/n} + \int_{1/n}^{\delta} + \int_{\delta}^{\pi} \right) \cot \frac{1}{2} t \lambda_n(t) dg(t) \\
= \frac{1}{2\pi} (P_1 + P_2 + P_3),$$

where δ is positive and small.

On page 284: In the evaluation of P_2 take δ as the upper limit of the integral instead of π . As integration by parts shows, under the hypothesis of the theorem the integral $\int_0^{\delta} \cot \frac{1}{2} t |dg(t)|$ exists for small δ and large n . Hence $|P_2/n|$ can be made arbitrarily small by first choosing δ sufficiently small and then choosing n sufficiently large.

Finally, $P_3 = o(n)$ for a fixed δ . This is proved by applying the lemma of page 282 after making

$$\int_{\delta}^{\pi} \cot \frac{1}{2} t \lambda_n(t) dg(t) = \int_0^{\pi} \lambda_n(t) d\beta(t),$$

where $\beta(t)$ is an even and continuous function of bounded variation which vanishes for $0 \leq t \leq \delta$.

Corresponding modifications should be made in the analysis at the bottom of page 284 and the top of page 285.

3. On page 285, in formula (4.1) — should be replaced by +.

4. Corrections corresponding to 2 should be made in the analysis of § 5.

In formula (5.3) the integral denoted by I should be broken up into two parts: $\int_{1/n}^{\delta} + \int_{\delta}^{\pi} = I + I_1$, where δ is small. The estimates of I and I_1 will proceed as those of P_2 and P_3 respectively.

5. The example considered by SINGH and referred to in § 2 is the series $\sum_{n=1}^{\infty} \cos nx$ which corresponds to the periodic function (with period 2π)

$$f(x) = \frac{1}{2}(\pi - x) \quad \text{for } 0 < x < 2\pi, \quad f(0) = 0.$$

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(Eingegangen am 11. Februar 1953.)