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Review text:

For positive values of α let $q_\alpha(t)$ be a non-negative monotonic increasing function on $0 \leq t \leq 1$, satisfying certain other conditions and let $Q(t) = \int_0^1 q_\alpha(t)dt$ A series $\sum u_n$ is said to be N_{q_α} summable to ℓ if $\lim_{w\to\infty} \sum_{n\leq w} u_n$
$Q(1-n/w) = \ell$; the series is said to be $|N_{q_\alpha}|$ summable if for some positive constant A, $\int_A^\infty |\sum_{n\in w} nu_n q_\alpha(n/w)|dw/w^2$ is finite. The N_{q_α} method is a generalization of a method introduced by F. Nevanlinna Uber die Summation del Fourier Reihen und integrale overskit av Finska Vetensk 6A No. 3 (1921-22) 14. For a Fourier series $f(t) = \sum_{n=0}^\infty a_n \cos nt + b_n \sin xt$ we denote by $\psi(t)$ the quantity $(f(x+t) - f(x-t))/2$ and by $\Psi_\alpha(t)$ the quantity $\int_0^t (t-u)^{\alpha-1}\Psi(u)du/f(\alpha)$. It is shown that if $\int_0^\pi |d\Psi_\alpha(t)|/t^\alpha$ is finite and $\Psi(0+) = 0$, then the conjugate Fourier series to f, $\sum b_n \cos nt - a_n \sin nt$ is $|N_{q_\alpha}|$ summable at $t = x$ for $\alpha > 0$. By taking $q_\alpha(t) = \beta(1-t)^{\beta-1},\ 0 < \alpha < \beta < [\alpha]+1$, where the symbol $[\alpha]$ denotes the greatest integer not exceeding α, it is obtained as a corollary that under the stated conditions, the conjugate series of $f(t)$ is absolutely summable at $t = x$ by the Cesàro method $|C, B|$ for $\beta > \alpha > 0$.