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Wintgen inequalities on Legendrian submanifolds of generalized Sasakian-space-forms

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Abstract: A submanifold M^m of a generalized Sasakian-space-form $\overline{M}^{2n+1}(f_1, f_2, f_3)$ is said to be C -totally real submanifold if $\xi \in \Gamma(T^\perp M)$ and $\phi X \in \Gamma(T^\perp M)$ for all $X \in \Gamma(TM)$. In particular, if $m = n$, then M^n is called Legendrian submanifold. Here, we derive Wintgen inequalities on Legendrian submanifolds of generalized Sasakian-space-forms with respect to different connections; namely, quarter symmetric metric connection, Schouten–van Kampen connection and Tanaka–Webster connection.

Keywords: generalized Sasakian-space-form; Legendrian submanifold

AMS Subject Classification: 53C25, 53C15

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