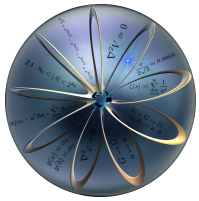

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Weierstrass M-test for continuous functions

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When the set X in the statement of the Weierstrass M-test is a topological space, a strengthening of the hypothesis produces a stronger result. When the functions f_n are continuous, then the limit of the series $f = \sum_{n=1}^{\infty} f_n$ is also continuous.

The proof follows directly from the fact that the limit of a uniformly convergent sequence of continuous functions is continuous.