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Fatou's lemma

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Related topic FatouLebesgueTheorem

 $\begin{array}{ll} \mbox{Related topic} & \mbox{MonotoneConvergenceTheorem} \\ \mbox{Related topic} & \mbox{DominatedConvergenceTheorem} \end{array}$

If f_1, f_2, \ldots is a sequence of nonnegative measurable functions in a measure space X, then

$$\int_{X} \liminf_{n \to \infty} f_n \le \liminf_{n \to \infty} \int_{X} f_n$$