Some remarks concerning the proof of the maximal ergodic inequality

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Nowadays in most textbooks the Maximal Ergodic Inequality is shown by means of the brilliant and short proof due to A. Garsia. In this paper a different proof of the inequality given by Keane and Petersen is further simplified, such providing a maybe a bit more intuitive and still short alternative to the somewhat tricky approach proposed by Garsia. Besides it is shown that the Ergodic Theorem follows almost immediately from a slight generalization of the Maximal Inequality.