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Moderate deviations for martingales with bounded jumps. (English) Zbl 0854.60027

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Summary: We prove that the moderate deviation principle (MDP) holds for the trajectory of a locally square integrable martingale with bounded jumps as soon as its quadratic covariation, properly scaled, converges in probability at an exponential rate. A consequence of this MDP is the tightness of the method of bounded martingale differences in the regime of moderate deviations.

MSC:

60F10 Large deviations
60G44 Martingales with continuous parameter
60G42 Martingales with discrete parameter

Keywords:

moderate deviations; martingales; bounded martingale differences

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