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Amplitude modulation in sleep EEG signals of elderly subjects

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The amplitude modulation of the so-called sigma activity (12.5-14.5 Hz) of sleep EEG recorded during sleep shows features which vary according to the cyclic REM-NREM transitions during the night. A previous research has shown that some parameters connected with the even-order moments of the sigma modulation power spectrum are able to discriminate between REM and NREM sleep. Aim of the present work was to test these parameters under different physiological conditions, i.e. sleep in elderly subjects, which usually produce many difficulties in conventional EEG processing.