**STUDY OF ISOLATED SUBSTORMS AND SUBSTORM SEQUENCES BY THE PREDICTION FILTERING TECHNIQUE**

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The prediction filtering technique was applied to analysis both of the single substorms (33 events) and the substorm sequences (51 events). So far as the calculations testify about absence of an unique filter VBs–AL for all substorms in a separate dataset, methods of averaging and epoch superposition were used to reveal the main trends. The average filter for a isolated substorm exhibits the fast response maxima falling on lags from 12 to 30 min as well as the more delayed maxima falling on lags up to ~ 2 h (main peak falls on ~ 75 min), whereas that one for a substorm sequence is essentially different and exhibits the main response peak at delay ~ 25 min. The partial contributions of fast and delayed responses of the AL-index to the southward IMF were calculated (the latter is stronger than the former, on the average). Also, a mean phase shift between these two responses is essentially larger for the substorms in a sequence as compared with the isolated ones (~ 1 hour versus ~ 30 min). It is found that the short-term bursts of AL, often seen during a substorm expansion, are fitted mainly by a delayed response, i.e. are caused by an energy unloading. As such bursts are described by a far prehistory of the interplanetary driver VBs, they must not be considered as the caused by solely internal reasons, as is widely assumed. A completely different type of situation occurs during an interval of the very prolonged southward IMF when a contribution of a fast response sharply dominates defining the greater part of the strong disturbances (low-frequency component in AL). It is marked also that an effect of the solar wind dynamic pressure on the AL-index may occasionally be amazingly strong manifesting itself as an essential contribution into a fit of the AL-index (after substraction of the part fitted by VBs) for an individual disturbance. As a rule, this is caused by an appearance of the strong density burst in the solar wind before or during this disturbance. The results as a whole point to importance of the magnetospheric state for development of a separate disturbance, and to nonlinearity of the magnetospheric response to external conditions.