



Search procedure in MAFA-UWM method in the case of many satellites

Slawomir Cellmer, Zofia Rzepecka, Jacek Rapinski, and Paweł Wielgosz

Institute of Geodesy, University of Warmia and Mazury in Olsztyn, Poland (slawomir.cellmer@gmail.com)

The Modified Ambiguity Function Approach-University of Warmia and Mazury (MAFA-UWM) is a method of GNSS carrier phase data processing. In this method, the integer nature of the ambiguities is taken into account in the functional model of the adjustment. One of the methods of improving the MAFA-UWM method is search procedure. This technique allows obtaining correct solution even in the case when a priori position is a few meters away from the actual position. In this presentation the general algorithm of search procedure is presented. A new technique of reducing amount of computation is also proposed. An example of data processing using the proposed algorithm is given. The results of numerical tests based on real data are presented as well.