

ABSTRACT

Method for correcting position estimations by selecting pseudo-distance measurements

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The subject of the invention is a method for correcting position estimations, an enhanced position X_{huber} being determined by application of a robust estimation algorithm (104) using N measurements (102) of pseudo-distances p_i corresponding to the distance measured between a navigation receiver and N satellites and an estimation X_{prim} of the position of said receiver (103) made by said receiver. The method comprises at least the following steps: a step for determining normed residue values $\Delta r_{\text{huber}}^i$ from the residues $\Delta p_{\text{huber}}^i$ of pseudo-distances from the measurements p_i , a step (111) for determining Σ subsets (105, 106), a subset comprising N-k normed residue values $\Delta r_{\text{huber}}^i$, k being an integer strictly greater than 1, a step for selecting the subset SEO with the smallest standard deviation σ_{SEO} , a step for selecting non-aberrant measurements (107), a measurement being selected if the difference between the normed residues $\Delta r_{\text{huber}}^i$ and the mean μ_{SGO} of the normed residues of the subset SEO is less than a predetermined threshold value T_1 , a step for determining a corrected estimation X_{dn} of the position from the selected measurements.

25 FIG. 1



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