An approach to the heliospheric current sheet local structure

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In 2003 we present a new approach to the problem of estimating several properties of the heliospheric current sheet local structure from a single observation point. This analysis method was named HYTARO and was based on three main assumptions: a) the heliospheric current sheet is localy plane, b) its magnetic topology is described by a Harris field plus a local background field, and c) the proposed magnetic field topology and the measured by in situ magnetometers were related by two consecutives rotations. In this work we revise our method trying to respond to several questions arisen from other colleagues and ourselves and develop a more precise procedure able to reduce the number of the required fit parameters. Finally we compared HYTARO with the well-known minimum variance method and with the coplanarity analysis method.