



## **Banana-polarized solitons related to Ulysses observations**

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Localized magnetic compressions in the slow solar wind which are associated with a rotation in the magnetic field direction have recently been reported after surveying Ulysses high-resolution data. Although the observed structures have similarities to usual Hall-MHD solitons in isotropic plasmas, the banana-type polarisation of these relatively rare events is a decisive signature which counts against such an interpretation. Here we consider stationary wave forms in an anisotropic plasma in the phase velocity gap between the slow and the intermediate mode. It is shown that for slow solar wind conditions ( $A = T_{\parallel}/T_{\perp} > 1$  and  $\beta_{\perp} \sim 1$ ) 'bright' solitons with banana type polarization exist which in many respects reflect the observed Ulysses magnetic events. Necessary condition for the appearance of 'bright bananas' is that depending on temperature anisotropy  $A$  the slow mode becomes faster than the intermediate mode.