A multiline inversion using PCA

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When observing the Sun's atmosphere, the amount of information contained
in the Stokes parameters depends on the spectral line and on the noise
level. Consequently, when applying inversion codes to the observed
profiles one should be careful when interpreting the results. At this
point, it becomes necessary to constrain as much as possible the models
and to retrieve a realistic error bar. We can achieve it by using a PCA
inversion whose data base has been built using the SIR code. In this
talk I will show the preliminary results using such inversion code
applied to the spectral ranges at 1.5 micron and 630 nm.

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