NLTE Calculation of the SOlar spectrum with CRoss-influence of solar ATmospheric structures (SOCRAT)

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I will present the new SOCRAT project, which consists of an adaptation of the COSI code developed at PMOD/WRC to represent 3-D effects in the radiative transfer using cross-influence between different atmospheric structures, which simplifies the calculations to a 1.5-D model instead of 3-D. I will first present the motivations behind this project, such as the disagreement between reconstructed and observed spectra in the infrared and UV, and the oxygen crisis. I will then describe the implementation and present some preliminary results.