NLTE Line Formation in Late-Type Stellar Atmospheres

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We briefly describe an on-going project to calculate detailed NLTE fully-blanketed model atmospheres for late-type dwarfs. Present computers and state-of-the-art codes make it possible to calculate consistent NLTE atmospheric structures and spectra, including dozens of species, thousands of energy levels, and tens of thousands of transitions. We have initiated the gathering of a comprehensive and highly homogeneous library of model ions based on modern databases available on the net. We compare early test calculations against solar observations.