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Since the discovery of the solar corona, many attempts have been made to model its behaviour. Perhaps the most well-known attempt was made by Parker (1958) when he assumed that the quiet sun corona is in hydrodynamical balance. Nevertheless, his model has several limitations (a saddle point, non-diverging solutions, etc). Lemaire & Stegen (2016) introduced the DYN model that addressed those issues by assuming a more realistic electron density distribution and boundary conditions based on in-situ observations at 1 au.

More recently, Lemaire & Katsiyannis (2021) expanded further on the DYN model and produced electron temperature profiles ($T_e(r)$) for a variety of observed conditions. They found a very large increase in $T_e(r)$ at radial distances of ~2-5 solar radii and conjectured that a heating process takes place at those levels.

This contribution will present the DYN model, with its assumptions and limitations. It will also contain the most important results published by Lemaire & Stegen (2016), and Lemaire & Katsiyannis (2021). Furthermore, a yet unpublished temperature profile based on more accurate electron density distribution measurements will be shown. A comparison between those results and recently published observed temperatures will provide a useful insight to the QS middle corona. Finally, there will be a discussion about future work and the synergy of observations and modelling.
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