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## **Modelling the ionospheric Alfvén resonance with transmission lines**

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We present results on the simulation of propagation of Alfvén waves in the Earth's ionosphere using a transmission line model and its implementation in the software package PSpice A/D. The parameters of an “Alfvén” transmission line are obtained by comparing the dispersion relation of Alfvén waves with the dispersion relation of waves propagating in transmission lines. The ionospheric Alfvén resonance is simulated using model profiles of the Alfvén speed and electric conductivity for the middle-latitude ionosphere, and the “Alfvén” transmission line model. Furthermore the responses of the resonator to excitations by broadband (impulse) sources in the atmosphere and ionosphere are examined.