



Edgar S. Carlin

Solar Physics

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I studied Telecommunications Engineering at the University of Las Palmas de Gran Canaria (Spain) and I graduated in Physics at the ULL. My interest in investigating quantum and stellar physics jointly led me to obtain my PhD as Resident Astrophysicist at the IAC (2009-2013), where I specialized in polarized radiative transfer in the solar chromosphere through simulations of dynamic spectropolarimetric signals with atomic polarization and Hanle effect. From 2013 to 2017 I was a postdoctoral researcher at IRSOL (Locarno, Switzerland). There I worked investigating improvements in the theory of spectral line polarization, simulating the temporal evolution of the solar polarization and observing it with the ZIMPOL spectropolarimeter. Since 2018 I have obtained two postdoctoral positions at the IAC and I developed models able to explain anomalous polarization signals in order to improve the diagnosis of solar and stellar magnetic fields. My interests encompass everything related to the polarization of light in astrophysics, from its theoretical description (quantum physics, Hanle and Zeeman effects, radiative transfer models) up to its simulation (numerical methods, solar MHD models) and observation/analysis (data science, AI techniques).