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# The Solar Wind In Time

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## Abstract

We perform 3D magnetohydrodynamical wind simulations to investigate the evolution of the solar wind from early to current epochs. For this, we use a sample of solar twins ranging in age from 120 to 4700 Myr. Our models incorporate the magnetic field maps observationally derived for these stars. We further constrain our models by using X-ray observations. From our simulations we calculate mass loss rates and find a dependence in mass loss evolution with age and rotation for solar analogue stars. Furthermore, this study examines the effect the aging wind has on the evolution of the Earth's magnetosphere.

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