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Unraveling the Mysteries of Pleione: Shedding Light on Strange Spectra in a Hot Be Star

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Jamie Griffiths

June 9, 2023

Be stars are some of the hottest stars in our universe. The gaseous disks around Be stars give invaluable insight into how our universe functions. Pleione, a Be star in the Pleiades cluster, has piqued the curiosity of astronomers worldwide due to the peculiar behavior shown in the spectra from its disk. Pleione has abnormalities in certain spectral features, and the reason for these abnormalities are currently unknown.

To shed light on this intriguing phenomenon, my research utilizes highly computational simulation code to model Pleione and its disk. I aim to create a dynamic, tearing disk around Pleione that will match observations over the last few decades, and provide answers to the outstanding questions around Pleione.

This investigation promises to unlock key insights into the nature and evolution of Be stars, contributing to our broader understanding of stellar astrophysics and the universe as a whole.