



## Research Published in Science Magazine

In a groundbreaking paper published in the highly prestigious Science Magazine, an international team of scientists and Dr. Amin Farhang from School of Astronomy, have shed light on the intriguing phenomenon of magnetic fields in massive stars. Contrary to conventional understanding, where the radiative envelopes of massive stars were deemed incapable of sustaining a dynamo, responsible for generating magnetic fields in their lower-mass counterparts, low numbers of these massive stars exhibit observable magnetic fields. By employing an array of meticulous multi-epoch interferometric and spectroscopic observations, the research team focused their attention on HD 148937, an intriguing binary system comprising two massive stars. Their findings revealed an astonishing revelation: only one of the stars in the binary system possessed a magnetic field, and notably, it appeared to be younger than its companion. Through comprehensive modeling efforts, the researchers proposed an intriguing explanation—the magnetic massive star was the result of a merger between two stars in a previous triple system. This remarkable discovery provides compelling observational evidence substantiating the formation of magnetic fields through stellar mergers in at least a subset of these enigmatic massive stars. The implications of this research are profound, revolutionizing our understanding of magnetic field formation mechanisms in the realm of stellar evolution.

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