Like the more familiar solar wind, the hot star Zeta Puppis emits a stellar wind from its surface. An international team of researchers used data from NASA’s orbiting Chandra X-ray Observatory to measure the temperature of the X-ray-emitting material in its wind. Detection of the ion Fe XXV (iron atoms with 24 electrons removed) demonstrates that the hottest gas in the wind reaches temperatures near 12 million Kelvin. How gas this hot can be produced (some of it surprisingly near the star’s surface) is a puzzle which still needs to be solved.