The s process production in rotating low-mass AGB stars

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The slow neutron capture process (s-process) is responsible for about half of all elements heavier than iron in the universe, and is therefore important for galactic chemical evolution. Its main production site is the Asymptotic Giant Branch (AGB) phase, a late evolutionary phase in stars with an initial mass between about 0.8 and 8 M_{\odot} . Since stars rotate, it is important to calculate stellar evolution models including rotation. However, the implementation of rotation and rotation-induced mixing in stars is uncertain and does not reproduce all observables. Specifically, recent observables obtained by asteroseismic surveys show a process of angular momentum transport is missing in stellar evolution theory. We will present new AGB models including rotation that do match the observed rotation rates from large scale asteroseismic surveys. The s-process production of these rotating AGB models and their uncertainties will be presented and discussed in detail.