PREDICTIONS ABOUT CR EMISSION FROM EVOLUATIONARY SYNTHESIS MODELS

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We have extended our evolutionary synthesis models for Star Forming Regions to the γ -ray domain. We obtain the lightcurves of γ -ray line emission due to radioactive decay of stellar nucleosynthesis products, such as ²⁶Al, ⁶⁰Fe, or the e⁻e⁺ annihilation line as well as the evolution of the kinetic energy from massive stars. We present the correlation of these lines with the ionizing flux produced by massive stars and some preliminary predictions about the Cosmic Ray production in star forming regions. We show that the predicted γ -ray line observations combined with others multiwavelength measurements can efficiently constrain the age of a stellar population, and help to identify the primary nucleosynthesis sources of the radioisotopes.