Figure 2: The characteristics of myocardial contrast enhancement have been assessed in the literature using several parameters, as illustrated in this example, showing the signal intensity changes in the LV blood pool (arterial input function – AIF), and in an anterior segment of the left ventricle (green circles). The blue line shows the fit to the measured data with a two-space distributed model. The dashed red line is commonly referred to as the up-slope parameter, and gives the initial rate of contrast enhancement. It is often normalized by the up-slope of the AIF, as an empirical correction factor to account for hemodynamic changes between rest and stress. The area under the tissue curve (gray shaded area) up to the location in time where the peak of the AIF is observed has been proposed as an alternative parameter to assess perfusion and the perfusion reserve. The myocardial peak signal intensity during the first pass of the contrast bolus in the LV is arguably the least flow-sensitive parameter, and therefore only used to assess contrast-to-noise, but not changes or differences in myocardial perfusion.