

Lecture 30: Worksheet

Numerical methods

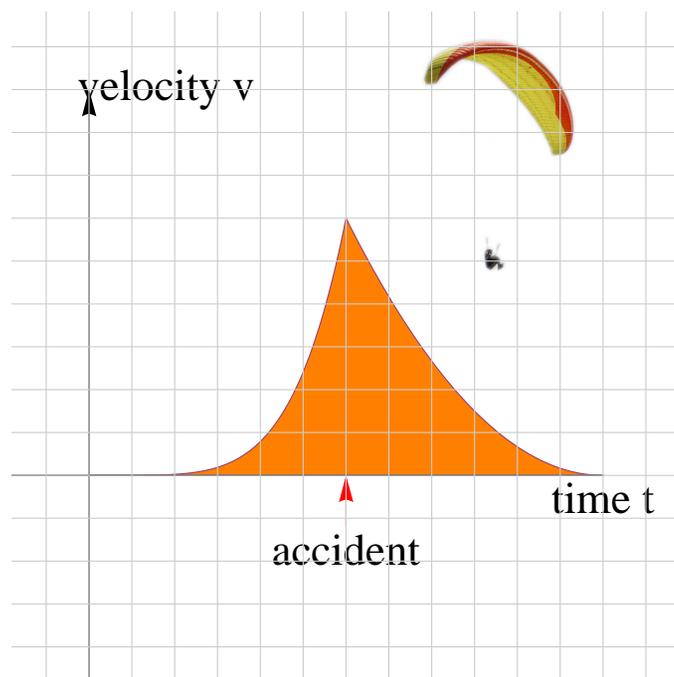


Foto taken by Oliver (while being in grad school) from his Paraglider near Lauterbrunnen in Switzerland.

1 A paraglider starts a flight in the mountain. The velocity is given in the above graph. Find out, whether the paraglider lands lower or higher than where it started.

Hint To estimate integrals take the average of the number A of squares entirely below the graph and the number B of squares containing part of the region below the graph. The result $A + B$ is a good estimate for the area below the graph.

2 Review: Integrate $x^{1/3} \log(x) dx$

3 Review: Integrate $\log(x^5)(1/x) dx$