

## SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies

Verification type	Code Verification
Database reference	CV-3
Topic / Application	Code verification
Physics	Numerical Diffusion
	Flux terms.
Summary	This test case demonstrates the qualitative behaviour of the Superbee flux limiter scheme for transport of a square wave.
Description	This test case demonstrates the qualitative behaviour of the Superbee flux limiter scheme for transport of a square wave. With diffusivity terms set to zero, this is a test of the ability of the numerical scheme to advect a square wave (high gradient) at an angle across grid cells.
Case Title	Scalar Transport (move_slug) (section 3.6)
Authors	Randall McDermott, Kevin McGrattan, Simo Hostikka, Jason Floyd
Year	2010
Online reference	NIST Special Publication 1018-5
Case image	Interim and final flow fields of a rectangular mass slug moved across grid cells.
Governing equations	
Results	Please see document

The SUSANA project is co-funded by the European Commission within the 7<sup>th</sup> Framework Program