

A diagram illustrating an isolated system. A central white rectangular area is labeled  $U, V, N_1, \dots, N_r$ . This central area is surrounded by a thick black rectangular frame, which is itself situated within a larger container defined by two sets of parallel lines. The inner boundary of the central area is marked with diagonal hatching. Two curved arrows originate from the text labels "isolated system" and "rigid walls" at the bottom, pointing upwards towards the corresponding features in the diagram.

$U, V, N_1, \dots, N_r$

isolated system

rigid walls