

Celerity, u , is defined as $c \sinh(w) = c \tan(\theta)$. When 2 velocities combine, the composite $v_3 = (v_1+v_2)/(1+v_1v_2/c^2)$. Each value of celerity corresponds to a specific value of w , $u_i = c \sinh(w_i)$. So, $u_3 = c \sinh(w_3)$, and $w_3 = w_1+w_2$, where w_1 and w_2 are the rapidities of u_1 and u_2 . The visible component of u_3 , v_3 , is smaller by the factor γ_3 . In fact, any number of rapidities can be added in one operation, and the result is just $c \sinh(w)$.