

• $\frac{1}{2} \frac{d}{dt} \int_{\Omega} \rho \phi^2 dx + \int_{\Omega} \rho \phi \phi_t dx = \int_{\Omega} \rho \phi \phi_{tt} dx + \int_{\Omega} \rho \phi_t \phi_t dx$
 $\frac{1}{2} \frac{d}{dt} \int_{\Omega} \rho \phi^2 dx + \int_{\Omega} \rho \phi \phi_t dx = \int_{\Omega} \rho \phi \phi_{tt} dx + \int_{\Omega} \rho \phi_t \phi_t dx$
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