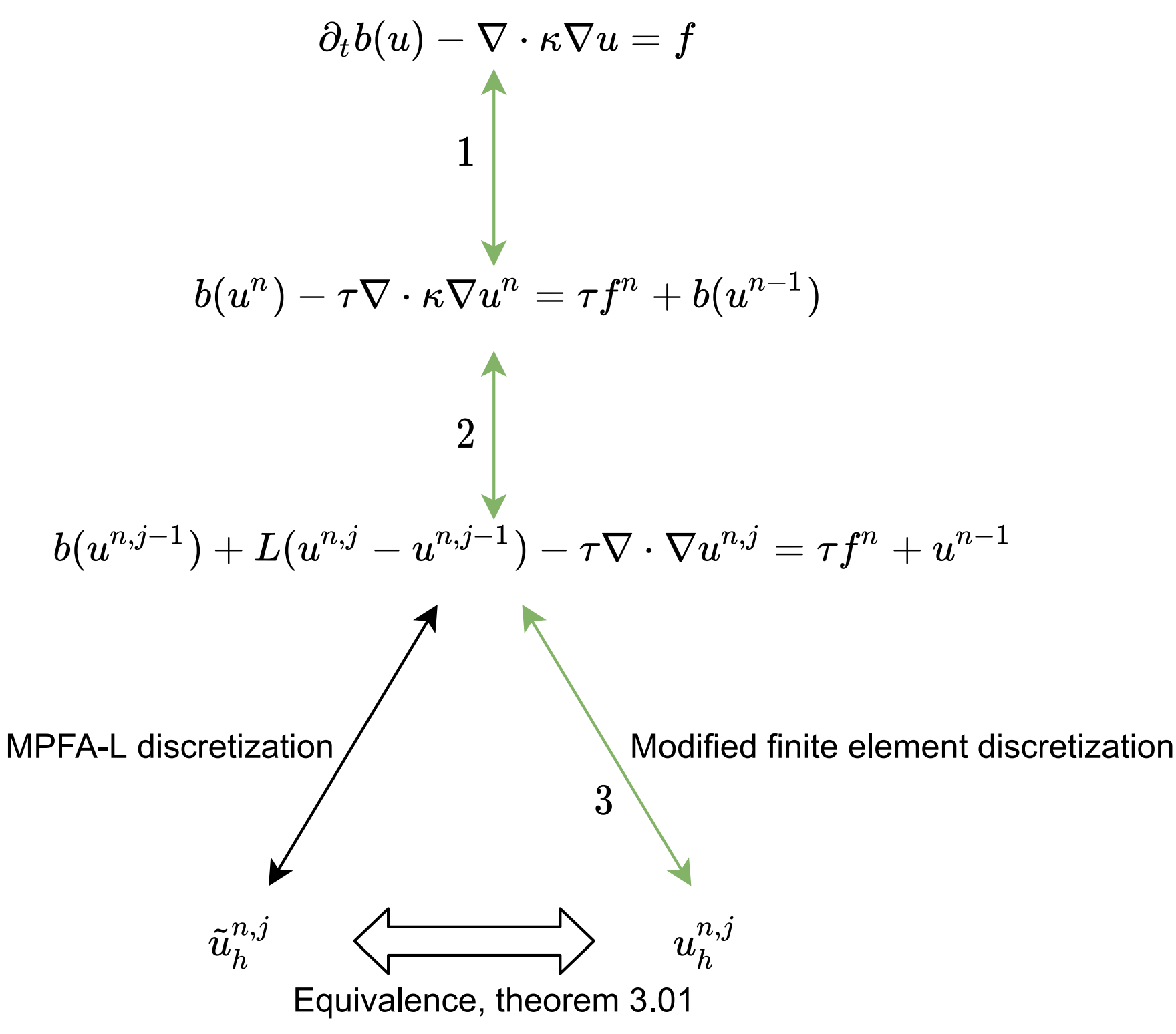
$\partial_t b(u) - \nabla \cdot \kappa \nabla u = f$
1
$b(u^n) - \tau \nabla \cdot \kappa \nabla u^n = \tau f^n + b(u^{n-1})$
2
$b(u^{n,j-1}) + L(u^{n,j} - u^{n,j-1}) - \tau \nabla \cdot \nabla u^{n,j} = \tau f^n + u^{n-1}$
MPFA-L discretization
Modified finite element discretization
3
$\tilde{u}_h^{n,j}$
$u_h^{n,j}$
Equivalence, theorem 3.01