```
Dir = XI[[2]] - XI[[1]];
le = SMSSqrt[Dir.Dir];
tang = Dir / le;
UDerivative = (UI[[2]].tang - UI[[1]].tang) / le;
δUDerivative = (δUI[[2]].tang - δUI[[1]].tang) / le;
G := (Em * A * UDerivative * δUDerivative) * le;
R := SMSD[G, δDOFVector];
K := SMSD[R, DOFVector];
```