Einstein	**Lovelock (generalized Einstein)**
E_{ij}: symmetric 2-tensor, divergence-free	F_{ij}: symmetric 2-tensor, divergence-free
$E = \mathrm{Poly}(g, \partial g, \partial^2 g)$, linear in $\partial^2 g$	$F = \mathrm{Poly}(g, \partial g, \partial^2 g)$, **nonlinear** in $\partial^2 g$ allowed
Critical for $\int \mathrm{scal}_g \ \mathrm{dvol}_g$	[Lab08]: Critical for $\int \mathrm{scal}_g^{(2q)} \ \mathrm{dvol}_g$
Solution space spanned by g, $\mathrm{Ric}(g)$	Solution space spanned by g, $\mathrm{Ric}(g)$, $\mathbf{Ric^{(4)}(g), \ldots, Ric^{(\lfloor n/2 \rfloor)}(g)}$
DeTurck trick	[Alb20]: DeTurck trick