

The General Equation

$$\square G^{ab} + G^{ps} (2 R_p^a b - \frac{1}{2} g^{ab} R_{ps}) = 0$$

The corresponding Lagrangian

$$\int \dots \int \sqrt{-g} (2 R^{ps} R_{ps} - R^2) dx^1 dx^2 \dots dx^n$$

The Scalar Reduction, Derived from the Trace, of the Equation in n Dimensions:

$$\square R + \left( \frac{n-4}{2n-4} \right) (2 R^{ps} R_{ps} - R^2) = 0$$

(It is notable that for 2 dims there is degeneracy and for 4 dims reduction to  $\square R = 0$ .)

The Equation with  $\square R^{ab}$  instead:

$$\square R^{ab} + 2 R^{ps} R_p^a b - R R^{ab} - \frac{g^{ab}}{2n-4} (2 R^{ps} R_{ps} - R^2) = 0$$

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Further remarks and explanations are given in an associated text file.