We study initial data in General Relativity, which are defined as solutions to the constraint equations. The focus in this talk is a modified version of the conformal method proposed by David Maxwell. While the model seems more strongly justified from a geometrical standpoint, the resulting system becomes significantly more difficult to solve; it presents critical nonlinear terms, including gradient terms. We describe existence and stability while working in dimensions 3, 4 and 5, under smallness assumptions and in the presence of a scalar field with positive potential. The tools we use are related to obtaining a priori estimates (compactness results) and a fixed-point theorem.