Hamiltonian analysis of novel Poincaré gauge theories: promising cases

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I. INTRODUCTION

$$L_{\rm T} = \hat{\alpha}_I \mathcal{R}^a{}_{bcd}\, {}^I\mathcal{P}_a{}^{bcd}{}_i{}^{jkl} \mathcal{R}^i{}_{jkl} + {m_{\rm p}}^2 \hat{\beta}_I \mathcal{T}^a_{bc}\, {}^I\mathcal{P}_a{}^{bc}{}_i{}^{jk} \mathcal{T}^i_{jk} + L_{\rm m} \tag{1}$$

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