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Continuum and discrete initial-boundary value problems and the Einstein field equations MANUEL TIGLIO, University of Maryland, OLIVIER SARBACH, Universidad Michoacana de San Nicolás de Hidalgo — In this talk we outline some of the theory necessary to understand continuum and discrete initial-boundary value problems arising from hyperbolic partial differential equations, and discuss applications to numerical relativity. In particular, we present a well posed initial and initial-boundary value formulations for Einstein's equations, and discuss multi-domain high order finite difference techniques and spectral methods to discretize them. The talk is a very brief outline of the contents of an upcoming Living Review in Relativity, "Continuum and discrete initial boundary value problems and the Einstein field equations," by Olivier Sarbach and Manuel Tiglio.

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