

# ON THE ASYMPTOTICS OF INITIAL DATA BY EVOLUTIONARY SOLVERS

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## Abstract

The authors in [1] pointed out that the algebraic-hyperbolic form of the constraints may lead to non-asymptotically flat initial data. While applying evolutionary solvers [2–5] the asymptotic behaviour of near Schwarzschild configurations can only be influenced by specifying initial data for the constrained variables on one of the spherical leaves of the foliation. For this reason it is of obvious interest to know if asymptotic flatness can be guaranteed by choosing suitable initial data for the constrained variables there. Integrating numerically both the parabolic-hyperbolic and the algebraic-hyperbolic form of the constraints the asymptotics of near Schwarzschild solutions was investigated. We found that the exclusion of monopole type excitations is necessary to get (weakly) asymptotically flat solutions to the constraints.

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## References

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