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			authors	Stephen McCormick		
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	urls	https://web.archive.org/web/20190430101905/https://rune.une.edu.au/web/bitstream/1959.11/21451/4/open/SOURCE03.pdf	id	id559904011042561836		
	id	id6599076378196451312		We consider two cases of the asymptotically flat scalar-flat Yamabe problem on a non-compact		
	abstract versions	We consider two cases of the asymptotically flat scalar-flat Yamabe problem on a non-compact manifold with inner boundary in dimension n â%¥ 3. First, following arguments of Cantor and Brill in the compact case, we show that given an asymptotically flat metric g, there is a conformally equivalent asymptotically flat scalar-flat metric that agrees with g on the boundary. We then replace the metric boundary condition with a condition on the mean curvature: Given a function f on the boundary that is not too large, we show that there is an asymptotically flat scalarflat metric, conformally equivalent to g whose boundary mean curvature is given by f. The latter case involves solving an elliptic PDE with critical exponent using the method of sub-and supersolutions. Both results require the usual assumption that the Sobolev quotient is positive.		manifold with boundary, in dimension n≥3. First, following arguments of Cantor and Brill in the compact case, we show that given an asymptotically flat metric g, there is a conformally equivalent asymptotically flat scalar-flat metric that agrees with g on the boundary. We then replace the metric boundary condition with a condition on the mean curvature: Given a function f on the boundary that is not too large, we show that there is an asymptotically flat scalar-flat metric, conformally equivalent to g whose boundary mean curvature is given by f. The latter case involves solving an elliptic PDE with critical exponent using the method of sub- and supersolutions. Both results require the usual assumption that the Sobolev quotient is positive.		
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