Recursion operators for multidimensional integrable PDEs

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Abstract:

We present a novel construction of recursion operators for scalar second-order integrable multidimensional PDEs with isospectral Lax pairs written in terms of first-order scalar differential operators. Our approach is quite straightforward and can be readily applied using modern computer algebra software. It is illustrated by several examples. For details please refer to arXiv:1710.05907.