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Heat Bath Efficiency with Metropolis-Type Updating OLEKSIY BAZAVOV, BERND BERG, Florida State University — We illustrate for 4D SU(2) lattice gauge theory that sampling with a biased Metropolis scheme is essentially equivalent to using the heat bath algorithm. Only, the biased Metropolis method can also be applied when an efficient heat bath algorithm does not exist. An example of this situation is U(1) lattice gauge theory. Similar considerations apply to spin systems of statistical physics.

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