

Minimal Warm Inflation

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“Warm inflation is an interesting alternative implementation of a period of accelerated expansion and reheating in the early universe. It turns out to be easy to have a concurrent quasi-thermal radiation bath if energy is extracted from the rolling scalar field via friction. The benefits of warm inflation include automatic reheating at the end of inflation when the thermal bath begins to dominate over the vacuum energy, and a new form of friction that does not require super-Planckian field excursions and suppresses contributions to the scalar-to-tensor ratio r . We show that with an axion-like coupling to a non-Abelian group, a thermal bath can be generated with all of these benefits and describe what we call the ‘minimal model’.”

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