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We consider the effect of trapped branes on the evolution of a test brane whose motion generates DBI inflation along a warped throat. The coupling between the inflationary brane and a trapped brane leads to the radiation of non-thermal particles on the trapped brane. We calculate the Gaussian spectrum of the radiated particles and their backreaction on the DBI motion of the inflationary brane. Radiation occurs for momenta lower than the speed of the test brane when crossing the trapped brane. The slowing down effect is either due to a parametric resonance when the interaction time is small compared to the Hubble time or a tachyonic resonance when the interaction time is large. In both cases the motion of the inflationary brane after the interaction is governed by a chameleonic potential, which tends to slow it down. We find that a single trapped brane can hardly slow down a DBI inflaton whose fluctuations lead to the Cosmic Microwave Background spectrum. A more drastic effect is obtained when the DBI brane encounters a tightly spaced stack of trapped branes.

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