

Circuit approach to photonic heat transport

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We discuss the heat transfer by photons between two metals coupled by a circuit containing linear reactive impedances. Using a simple circuit approach we calculate the spectral power transmitted from one metal to the other and find that it is determined by a photon transmission coefficient which depends on the impedances of the metals and of the coupling circuit. We study the total photonic power flow for different coupling impedances both in the linear regime where the temperature difference between the metals is small and in the nonlinear regime of large temperature differences.