## Abstract Submitted for the DAMOP09 Meeting of The American Physical Society

Low-loss nonlinear polaritonics<sup>1</sup> BARRY SANDERS, University of Calgary, SERGEY MOISEEV, Kazan Physical-technical Institute, Russian Academy of Sciences, ALI KAMLI, King Khalid University — We show how to achieve low-loss giant nonlinear phase shifts between weak surface polaritons by nano-confined propagation through an electromagnetically-induced transparent medium in the vicinity of a negative-index metamaterial.

<sup>1</sup>iCORE, NSERC, MITACS, GDC, KACST, CIFAR, RFBR

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