Resonance of SSR in Mid- and Near-Infrared Regions JING YANG,
JUNGSEEK HWANG, THOMAS TIMUSK, Department of Physics and Astronomy, McMaster University — We have fabricated periodic Au SSR (Split-Ring Resonator) patterns on Si substrates by electron-beam lithography. The dimension and periodicity of the SSRs can be confined to fairly small sizes, in microns and sub-microns. We will investigate the reflectance and transmittance spectra of the samples with a Bruker IFS 66v/s Fourier-transform spectrometer and an infrared microscope. The optical measurements will be performed with polarized light source. The samples are expected to exhibit electronic and magnetic resonances in the mid- and near-infrared regions.