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Using radar waves to image subsurface heterogeneities: a case study from Randolph College, VA TATIANA TOTEVA, REEJU POKHAREL, ARCHANA DATTA, Randolph College — A 2D ground penetrating radar survey at 250 MHz central frequency was conducted on Randolph College's campus, in Lynchburg, VA. The experimental setup consisted of three radar profile lines, each with length of 70 – 100 m. The goals of the project were to image subsurface heterogeneities, and define depth to bedrock. Conventional seismic refraction conducted earlier at the side revealed irregular topography of the subsurface and high degree of uncertainty in the arrival times of the elastic waves. Radar surveys have the potential to provide much higher resolution images. We observed a number of point reflectors and multiple layering of the subsurface soil.

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