540. Title:Numerical calculation of reflection characteristics of grooved surfaces with a 2D FDTD algorithm
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Abstract:A method was developed to calculate the reflection of microwaves at corrugated metallic

surfaces along with the expected ohmic losses and phase shifts. The implemented FDTD algorithm treats the wall as a plasma with a cutoff frequency far above the microwave frequency. This results in a self-consistent solution of the currents together with the E/M fields. After describing the algorithm, comparisons with loss and phase measurements are shown and an optimized corrugation profile is suggested.