

# Session S

## Millimeter Wave Systems Applications

### Co-Chairmen:

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This session highlights recent advances in millimeter wave technology that demonstrate improved systems performance. An imaging radar at 94 GHz is described using a low noise feed-mounted MMIC HEMT amplifier that can display airport runway images at a 3 km range.

Up and down converter technology is presented that will be an integral part of future 60 GHz satellite communications. Techniques are presented for millimeter wave oscillator frequency stabilization; they include frequency dividers for phase-locked-loops and high Q quasi-optical cavities. New Q-band MMIC switched phase shifters and power amplifiers are described that will make mm wave phased arrays more viable.

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**10:00 a.m.–11:30 a.m., Wednesday, June 3, 1992**  
**Ballroom A**