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Radio-based Studies of Solar Flares: Looking Ahead to the Next Solar Maximum in 2025¹

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NJIT's Expanded Owens Valley Solar Array (EOVSA) has amply demonstrated the power of radio imaging spectroscopy for imaging and quantitative diagnostics of both the flaring and non-flaring Sun. The unique sensitivity of radio emission to the flaring coronal magnetic field has been dramatically shown in a series of recent papers, along with accelerated-electron diagnostics in the same volume. The coming solar maximum (cycle 25) is slated to peak in 2025-2026, which promises to bring new space- and ground-based instruments together with EOVSAs to provide our best observational view of solar flares ever achieved. Here we describe the preparations underway and what we hope to learn in the coming solar cycle from radio-based studies of solar flares.

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