THE TAIL END
PAGE 353 Two methods for Gaussian-tailed zero-memory nonlinearity design in symmetric noise have been advanced by researchers from China. Their Letter describes the use of a derivative-free method to maximise the efficacy and identify an optimal design. Simulations show the design performs almost as well as the locally optimal detector but with the added advantage of good practicability for applications.

GO FULL CIRCLE
PAGE 300 Researchers from Queens University Belfast show how two cascaded Rotman lenses feeding a circular array do not require phase shifters to beam steer/shape and perform retrodirective action. The additional flexibility of beamwidth control was demonstrated by switching the interconnections between the cascaded lenses with experimental validation at 9.3 GHz.

REVERSE BLOCKED
PAGE 350 A team of researchers from China has proposed a reverse blocking insulated-gate bipolar transistor (IGBT) with a partially narrow mesa structure and trench collectors. An introduced n-cs layer between two trench gates shields a forward blocking state from high electric fields. Numerical simulation results show that the proposed IGBT can use a 38% thinner n-drift region than the conventional counterpart.

LOOK SMART
PAGE 334 Smart devices, such as TVs and phones, benefit greatly from the integration of LEDs and embedded cameras, with these additions providing the opportunity to establish optical camera communication systems for Internet-of-Things applications. An experimental demonstration of such a system is detailed in a collaborative Letter by researchers from Spain and the Czech Republic.

DOPED FIBER AMPLIFIER
PAGE 333 A pair of researchers from Japan have realised the first E-band thulium-doped fiber amplifier (TDFA). This novel design includes a three-stage configuration fluoride-based TDF and two filters suppressing amplified spontaneous emission in the S-band. The TDFA exhibits a high signal gain achieved at the shortest wavelength in the gain band when compared with TDFA gains without filters.