

The ALMA Observatory and the ALMA2030 Development Roadmap

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The Atacama Large Millimeter Array (ALMA) at 5000m altitude in northern Chile is an outstanding achievement in innovation and construction. The array consists of 66 high-precision antennas, each with a compliment of up to 10 state-of-the-art receiver systems that enable observations between 35GHz up to almost 1 THz. The total collecting area and sensitive receiver systems in this world-leading facility, combined with the long baselines and the high-altitude site, confer unprecedented performance characteristics for scientific exploration of the Universe at submillimeter/millimetre wavelengths. This talk will highlight ground-breaking science results, how the observatory faced the challenges presented by the extraordinary events of 2020, and the current operational status of ALMA. Looking to the future, the ALMA2030 Development Roadmap will be presented, including the scientific drivers that motivate new technology developments that aim to keep ALMA at the forefront of astronomical research. A summary of the Roadmap implementation and on-going technical work in the three ALMA partner regions towards achieving the Roadmap will be described.