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## EMUSE: Evolutionary Map of the Universe Search Engine

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The Evolutionary Map of the Universe (EMU) survey, conducted using the Australian Square Kilometre Array Pathfinder (ASKAP), aims to detect approximately 20 million radio galaxies, providing an unparalleled opportunity to explore galaxy evolution and uncover previously unknown astrophysical phenomena. However, the scale and complexity of this dataset go beyond the capabilities of traditional data mining methods. To tackle this, we are developing machine learning-based architectures tailored to the challenges of Big Radio Data. In this talk, I will introduce EMUSE (Evolutionary Map of the Universe Search Engine), a multimodal (image-text) search tool designed to efficiently query approximately 4,500 square degrees of EMU first-year survey images, delivering results within sub-seconds. I will demonstrate how EMUSE can effectively retrieve and classify radio sources based on their morphological characteristics. The EMUSE search engine is publicly available at: <https://askap-emuse.streamlit.app/>.

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