

## **ENIGMA - the versatile weather radar signal processing for weather radars - Magnetron, Klystron, TWT and SST**

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The GAMIC signal processor-digital-receiver ENIGMA, now sold in it's 4th generation, is designed to coherently process weather radar data (IF or video) in a flexible way. ENIGMA is proven to interfaces to almost any kind of radar using transmitters like Magnetron, Klystron, TWT and SST.

Many professional services like DWD, BWB and research in Germany Univ. Bonn, KIT, FZJ use ENIGMA and MURAN weather radar processing at their operational radars.

Internationally ENIGMA is used by major weather radar manufacturers in worldwide projects. Air traffic radars are serviced to extract weather information in paralel to aircraft tracking. More than 200 units have been sold!

The paper will discuss the large variety of algoritms and thier performance, available for SPOL and DPOL radars and the interfacing and advanced processing concepts like e.g. Pulse Compression for TWT and SST radars.