Investigating the Use of Interval Algebra to Schedule Mechanically Steered Multistatic Radars

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Abstract:
The research documented here falls within the field of information fusion and specifically focuses on sensor management. The focus is on the scheduling of Mechanically Steered Multistatic Surveillance Radar Networks (MSMSRNs) to constrain the research within a limited time period of four years. Mechanically steered radars were chosen as it was the most prevalent type of radar systems currently employed in South Africa. This is both in the field of defence and industry, where in the latter radars are used to detect weather phenomenon. This would allow the research to make impact immediately, as we could test the theoretical ideas quickly. Furthermore, improvements to be had would immediately be able to improve the performance of these radar systems.