# 基于动态规划的检测前跟踪算法研究

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在复杂背景杂波下对微弱目标的检测与跟踪是现代雷达面临的挑战之一，检测前跟踪技术利用目标信号的帧间相关性进行帧间积累。

由于时间限制，本文仍有一些问题没有进行深入讨论，主要包括：第一，本文只对单目标的检测跟踪问题做了研究，而实际探测环境中很大可能存在多个运动目标，如何区分多个目标、确定目标数量、多个目标的航迹区分等问题需要进行深入研究；第二，：本文只对单目标的检测跟踪问题做了研究，而实际探测环境中很大可能存在多个运动目标，如何区分多个。由于时间限制，本文仍有一些问题没有进行深入讨论，主要包括：第一，本文只对单目标的检测跟踪问题做了研究，而实际探测环境中很大可能存在多个运动目标，如何区分多个目标、确定目标数量、多个目标的航迹区分等问题需要进行深入研究；第二，：本文只对单目标的检测跟踪问题做了研究，而实际探测环境中很大可能存在多个运动目标，进行工程应用。

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**关键词**：雷达微弱目标，检测前跟踪，动态规划，杂波检验，机动目标

**导师签字**

Tracking Before Detection Based on Dynamic Programming

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**Keywords**: radar weak target, track-before-detect, dynamic programming, clutter test, maneuvering target

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