Search for Standard Polarised Stars using RoboPol survey data

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Abstract

This document contains details of the analysis performed by me in order to find Standard polarised star candidates from 3 years of RoboPol survey data. The objects in the fields of RoboPol images are afflicted with various systematic effects, which are addressed in the codes. As a rough estimate, I expect to get about 70-100 such promising candidates, which will then be followed up by observations through RoboPol as the central object to ascertain their polarisation non-variability .

1 Introduction

RoboPol has been taking data since late 2013 onwards. Although designed for observations of blazars and other point sources, owing to it's large field of view of 13×13 arcminutes, it has observed