# ephesos Documentation

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# CONTENTS

1	Introduction	1
2	Usage	3
	<ul> <li>2.1 Modeling a transiting hot Jupiter</li></ul>	3 3
3	API	5

#### CHAPTER

## INTRODUCTION

A large fraction of light sources in the sky is time-variable. Their variability contains valuable information about their nature.

Ephesos photodynamically calculates the total brightness of a system of stars, compact objects, planets, and moons as a function of time. The stars can potentially have time-variability due to stellar magnetism in the form of spots, faculae, and flares. It can model photometric, radial velocity, and astrometric time-series data typically collected in astronomy.

Ephesos derives its name from the ancient city of Ephesos on the western coast of Anatolia.

#### CHAPTER

TWO

## USAGE

- 2.1 Modeling a transiting hot Jupiter
- 2.2 Modeling a black hole transiting a Sun-like star

#### CHAPTER

# THREE

API