

# Modeling Coronagraphic Images of Beta Pictoris and other Debris Disks with Gas

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Theory: Yes

## Abstract

We propose to study the dynamics of dust grains in the Beta Pictoris disk and to model the X pattern, otherwise known as the "warp," revealed in ACS Coronagraph images. We will use our models to test the idea that the X pattern does not stem from the gravitational perturbations of a planet and we will tie together what we know about the dust and what we know about the gas in this nascent planetary system. We will provide numerical tools to the astronomical community that they can use to model other new and upcoming HST images of debris disks with gas.

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**Investigators:**

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Number of investigators: 5

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**Dataset Summary:**

Instrument	No. of Datasets	Retrieval Method	Retrieval Plan
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