

**Brown Dwarfs:  
Too Small a Star;  
Too Massive a Planet**

A Lecture by Kaew Tinyanont

Friday, December 8th, 7:00PM

Cahill Center for Astronomy and Astrophysics  
California Institute of Technology

Our Solar System contains two very distinct types of large gas clouds: a star and gas planets. The major difference between these two types of objects is their mass, the amount of material in each of them. Our star, the Sun, is one thousand times more massive than Jupiter, the biggest gas planet in our Solar System. When we look out of our neighborhood, however, we spot some objects that have masses in between stars and planets, and they carry some very interesting properties. These "brown dwarfs" behave a little bit like stars and a little bit like planets. I will discuss the physics behind brown dwarfs, how difficult they are to find, and how they act as a "missing link" to teach us about how both stars and planets form and evolve.

These are free lectures at a public level followed by guided stargazing with telescopes (weather permitting). All events are held at the Cahill Center for Astronomy and Astrophysics at Caltech. No reservations are needed. Lectures are 30 minutes, stargazing lasts 90 minutes. Stay only as long as you want. For directions, parking, weather updates, and more information, please visit:

<http://outreach.astro.caltech.edu>