

# WYKŁADY POPULARNONAUKOWE

## podczas Sympozjum Międzynarodowej Unii Astronomicznej

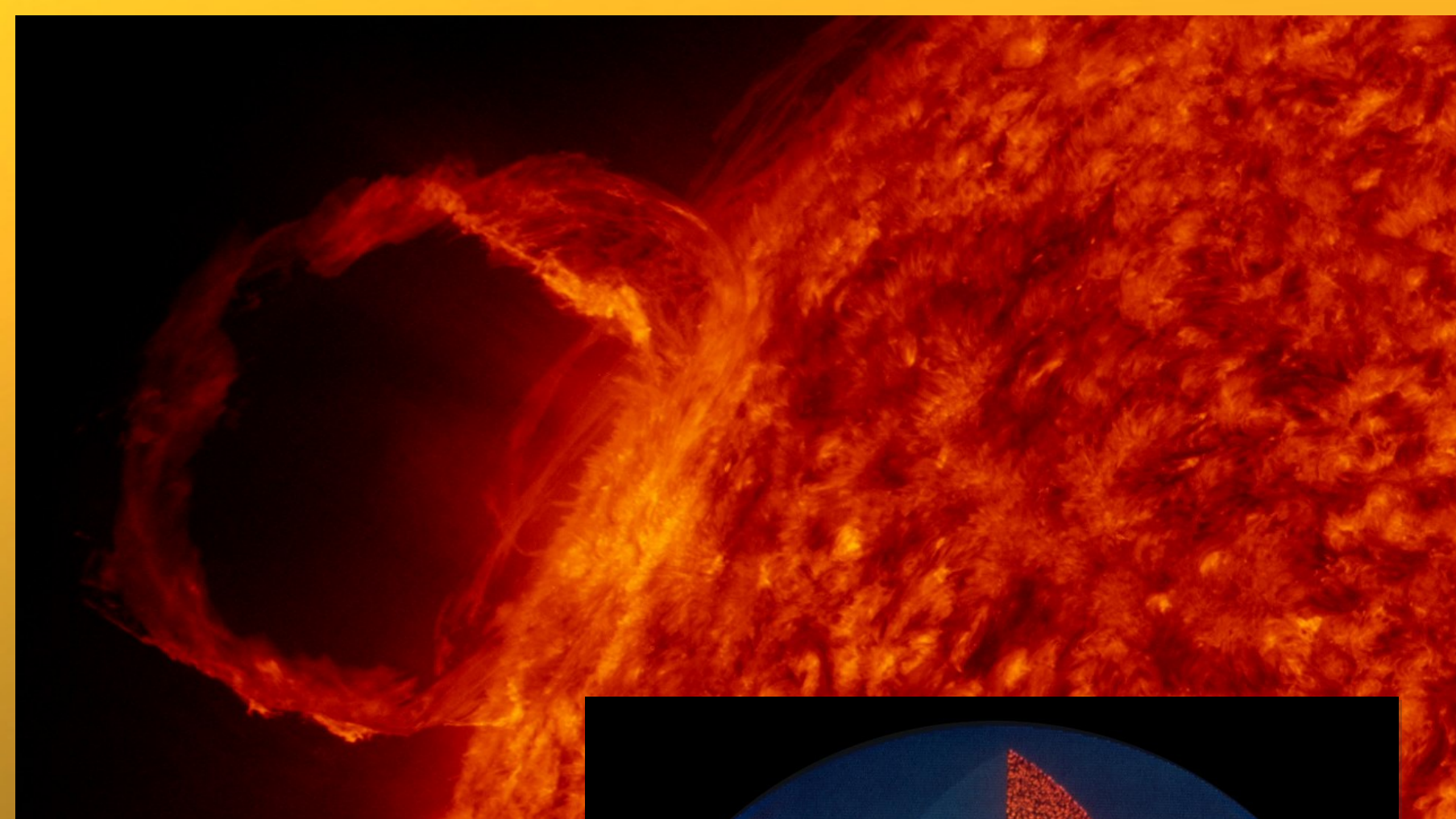
### sierpień 2013

**OŚRODEK SZKOLENIA PAŃSTWOWEJ INSPEKCJI PRACY**  
**SALA KONGRESOWA, nr 11**  
**ul. M. Kopernika 5, Wrocław (niedaleko Instytutu Astronomicznego)**



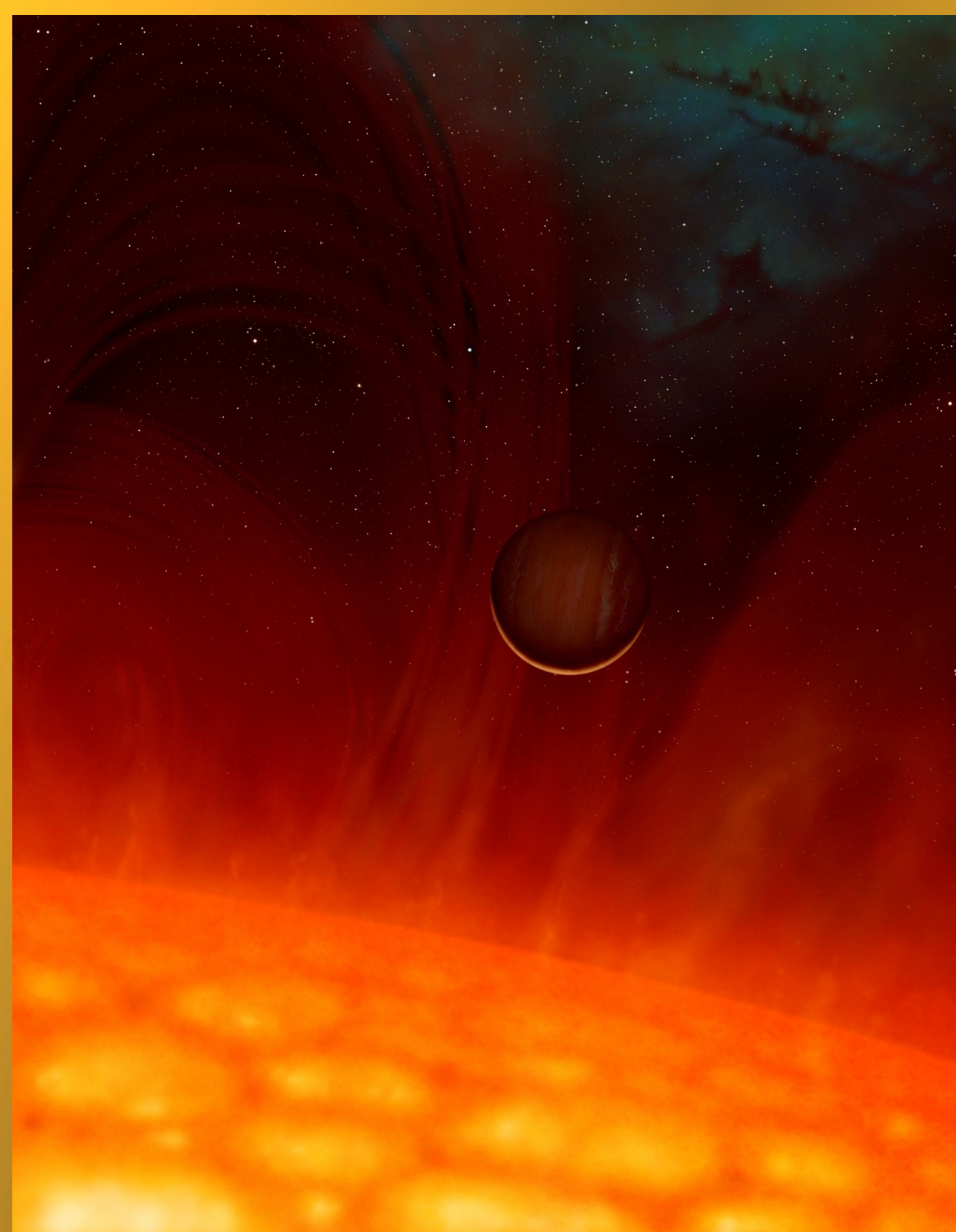
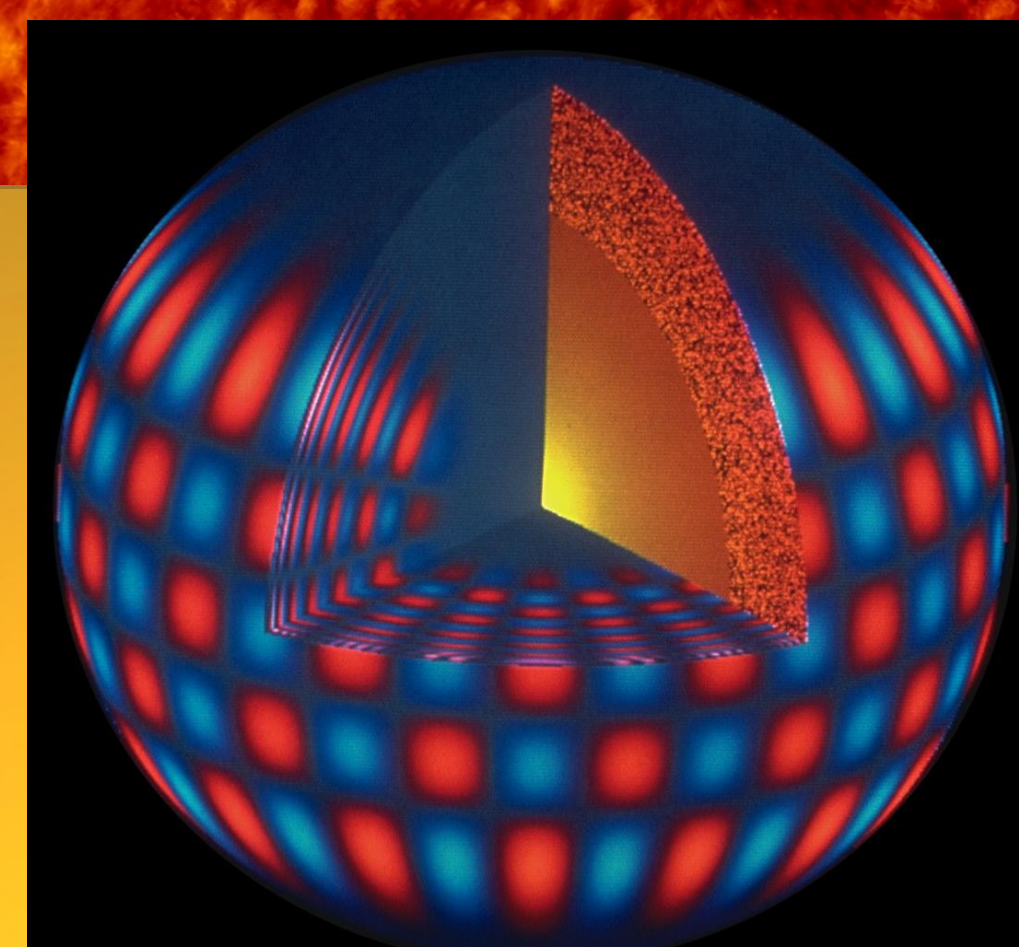
**Wtorek, 20 sierpnia 2013**  
**godz. 19:00**

**Prof. Joyce Guzik**  
**Los Alamos National Laboratory**  
**USA**



### **The origin and fate of the Sun and helioseismology**

Although we know more about the Sun than any other star, only the surface is directly visible. How do we know what is going on inside? This talk will discuss how scientists use a variety of tools to see beneath the Sun's exterior. While the Sun has a relatively quiet nature compared to many other stars, the Sun is by no means static, as it has a turbulent outer layer, is shaken by 'sun-quakes' and traversed by X-rays streaming from a hot dense core where the equivalent of 100 billion hydrogen bombs explode every second. We will discuss the questions of why the Sun shines, why the Sun has spots, predictions for the Sun's future, and implications for temperatures on Earth.



**Czwartek, 22 sierpnia 2013**  
**godz. 19:00**

**Prof. Donald Kurtz**  
**University of Central Lancashire**  
**Preston, Wielka Brytania**

### **Planets and Pulsations: The New Keplerian Revolution**

The Kepler Mission is a space telescope orbiting the Sun to discover planets around other stars. It has so far discovered more than 2400 exoplanets -- the vast majority of all known -- and is closing in on its goal to find another Earth, a rocky planet in the "Goldilocks zone" where life might exist. Kepler has even found Tatooines, planets orbiting double stars, as in the fictional Luke Skywalker's home planet in Star Wars, and it has found other solar systems with many planets. The Kepler Mission has improved our ability to see pulsations and variability in stars by 100 to 1000 times better than with ground-based telescopes. From this unprecedented improvement, we are looking right into the hearts of stars using a method called asteroseismology, and we are seeing stars as never before: heartbeat stars, flares stars, eclipsing stars with many stars orbiting each other, spots and magnetic cycles as in our own Sun. Kepler has shown that many stars like the Sun have much more severe "stellar weather"; that is a potential killer, so that our own Sun's quiet nature may be one reason why we are here.



**WSTĘP WOLNY**

**Więcej informacji pod numerem 71 372 93 73 lub na stronach**  
**[www.astro.uni.wroc.pl](http://www.astro.uni.wroc.pl) oraz [iaus301.astro.uni.wroc.pl](http://iaus301.astro.uni.wroc.pl)**

