**Host Manual**



**Jeopardy!**

***JEOPARDY!***

**Fabulous fields**

**100.** Of all the science disciplines, this “life” science has the most women in faculty positions (>20%).

*-What is Biology?*

**200.** Over 40% of students that major in physics and another field have their second major in this quantitative field.

*-What is mathematics?*

**300.** Females make up about 5% of the full professors in physics departments.

In this ancient and closely-related field, that number is doubled.

*-What is Astronomy?*

**400.** Of astrophysics, condensed matter physics, and plasma physics, the most physics PhDs are awarded for work in this subfield.

*-What is condensed matter?*

**500.** In 1988, the University of Wisconsin and Wayne State offered the first accredited programs in this high-paying field of applied physics.

*-What is medical physics?*

**Rock and Roll Physics**

**100.** Of diamond, graphite, quartz, and charcoal, this is the one not made from carbon.

*-What is quartz?*



**200.** Of a basketball, bowling ball and car tire, this one rolls down a ramp fastest.

*-What is a bowling ball?*

**300.** The T in MOSFET, this item is critical to the audio amplifiers that most rockers like to crank up to "11".

*-What is a (Metal-Oxide-Semiconductor-Field-Effect)-Transistor?*

**400.** For wheels, this force is usually much smaller than either its sliding or static counterparts.

*-What is rolling friction?*

**500.** While some claim the moon is yellow or the color of green cheese, most people, upon examining a moon rock, would say that it is this color because of its albedo of 0.12.

*-What is black? (What is dark gray? also acceptable)?*

**What’s in a Name**

**100.** This physicist calculated that black holes should emit radiation until they evaporate. He is almost completely paralyzed from ALS, or Lou Gehrig’s disease.

.*-Who is Stephen Hawking?*

**200.** The Nobel Prizes in Chemistry has been given to 3 women. This woman and her daughter each received one for work on radioactivity.

*-Who is Marie Curie?*

**300.** The second female to win a Nobel Prize in physics, Maria Goeppert-Mayer, won for this model.

*-What is the nuclear shell model? (“What is the shell model?” also accepted)*

**400.** By approving Edward Bouchet’s dissertation “On Measuring Refractive Indices”, this ivy league school because the first American university to grant a PhD to an African American.

*-What is Yale?*

**500.** This iconic physicist was engaged in many civil rights activities and co-chaired the American Crusade to End Lynching.

*-Who is Albert Einstein?*

**Extreme Planets**

**100.** This planet has the highest mean surface temperature.

*-What is Mercury?*

**200.** This former planet has a moon with nearly half its diameter.

*-What is Pluto?*

**300.** This planet has the largest angular momentum about our sun.

*-What is Jupiter?*

**400.** Of the 8 official planets, it could almost be considered a double planet, with the largest moon relative to its size.

*-What is the Earth?*

**500.** Galileo described this lowest density planet as having "ears".

*-What is Saturn?*



**Pop Culture**

**100.** In this 1997 film, based on a book by astronomer Carl Sagan, Jodi Foster’s character meets extraterrestrial beings.

*-What is Contact?*

**200.** This new CBS sitcom revolves around two theoretical physicists and their pretty neighbor.

*-What is* *The Big Bang Theory?*

**300.** Physicist Lawrence Krauss wrote this popular “physics of” book for Voyager fans.

*-What is The Physics of Star Trek?*

**400.** The guitarist from this legendary English band recently defended his PhD work in astrophysics.

*-What is Queen?*

**500.** John Lithgow played a physics professor in this wacky NBC sitcom (1996-2001).

*-What is 3rd Rock from the Sun?*

***DOUBLE JEOPARDY!***

**On the Hill**

**200.** Increasing diversity in science is a priority of this agency, commonly known as “NSF”, which funds fundamental science and engineering.

*-What is the National Science Foundation?*

**400.** Bart Gordon, chair of the House Committee on Science and Technology, represents this state.

-*What is Tennessee?*

**600.** Often called “RAGS”, this 2006 report warned that the US may be falling behind other countries in science competitiveness.

*-What is Rising Above the Gathering Storm?*

**800.** Before becoming science advisor to the President, Physicist Jack Marburger was director of this Long Island-based national lab, which specializes in nuclear physics.

*-What is Brookhaven National Laboratory?*

**1000.** There are currently two congressmen with PhDs in physics. Name one.

*-Who is who is Vernon Ehlers or Rush Holt?*

**Future Faces**



**200.** Prada and Calvin Klein market glasses as accessories, but many people opt for this procedure so they don’t need to wear them.

*-What is LASIK?*

**400.** The popularity of gels, strips, and lights that produce this sparkly effect has exploded recently – but even ancient Egyptians saw it as a sign of status.

*-What is white teeth?*

**600.** This haircut, named after the popular sitcom character who debuted it in the mid 1990s, will eventually be as outdated as "The Farrah.”

*What is “The Rachel”?*

**800.** In 2005, 2.7 million cosmetic surgeries were performed on this area of the face; making it the top ranking cosmetic surgery site for people ages 51-64.

*What is the eyebrow?*

**1000.** Coming in second to liposuction, this is the next most popular cosmetic surgery for men.

*What is rhinoplasty / nose job?*

**Tenure-Worthy**

**200.** 

*Who is Newton?*

**400.** 

*Who is Hubble?*

**600.** 

*Who is Ampere?*

**800.** 

*Who is Taylor?*

**1000.** 

*Who is Schrodinger?*

**Changing Fashions**

**200.**



*Who is Isaac Newton?*

**400.**



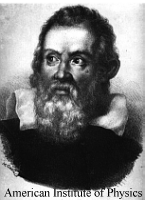
*Who is Marie Curie?*

**600.**



*Who is Richard Feynman?*

**800.**

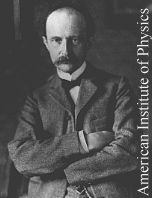


*Who is Galileo Galilei?*



**1000.**

**.**



*Who is Max Planck?*

**Sci-Fi to Real Life**

**200.** This fictional "beam" that moved people from one place to another in Star Trek now has a real-world equivalent -- using photons, not atoms yet.

*What is a transporter beam?*

**400.** The P in PET scans, this anti-particle is used to study the sources of medical seizures in the body.

*What is positron? (Positron Emission Tomography)*

**600.** The S in LASER, this word describes a process that contrasts with "spontaneous" emission of light, producing monochromatic rays.

*What is stimulated? (Light Amplification by Stimulated Emission of Radiation)*

**800.** Philo T. Farnsworth is often credited with this invention, in which images are transmitted via electromagnetic radiation.

*What is the television?*

**1000.** True to the sound of her name, she taught everyone "how" to slow light down to bicycle speeds in 1998.

*Who is Lene Hau?*