

1998 Princeton Buzzerfest II  
Quarterfinals Tossups

1. First observed over a decade ago, it can be explained by two theories - composite fermions or fractionally-charged quasiparticles - and is understood to be the result of complex semi-liquid states of a two-dimensional electron gas. It, and its more conventional variety, can be seen as well-defined plateaus in the increasing Hall resistance of a two dimensional electron gas at low temperatures as the magnetic field is increased. FTP, identify this variant of the Hall effect whose discovery recently won Princeton professor Daniel Tsui a share of the 1998 Nobel Prize in Physics.

FRACTIONAL QUANTUM HALL EFFECT

2. A flying pig, Jesus Christ, a vodka-drinking cat named Behemoth, Pontius Pilate, the Master, and Satan. FTP, these are all characters in what novel by Mikhail Bulgakov, a satire of Stalinist Russia which most strongly attacks the censorship policies of the regime?

The MASTER AND MARGHERITA

3. On Sept. 8, 1713, Pope Clement XI issued the bull Unigenitus, which condemned this religious sect. They evolved from the Manicheans and became a strong force in French politics of the 18th century as they were perceived as allied with the parlements. FTP, name this catholic "reform movement."

JANSENISM

4. This form of art is composed of kaleidoscopic repetitions of forms achieved by photographing objects through a triangular arrangement of three mirrors. It was invented by Alvin Langdon Coburn, a member of the Photo-Secession Group, in 1917. FTP, name this first kind of completely abstract photograph, whose name is a reference to the Vorticist group of British writers and painters.

VORTOGRAPH

5. In 1970, this musical icon checked into the Seagrove Hotel on the Isle of Wight and signed the register "Mr. and Misscarriage, Earth, Human Bean." FTP, name this ambidextrous/upsidedown/behind-the-back guitarist and former army paratrooper who began his musical career with the Blue Flames.

Jimi HENDRIX

6. One of the most potent antitumor agents known, this heavy metal complex is also a textbook example of the trans influence in ligand substitution in inorganic chemistry. Also very toxic, upon autopsy, the liver appears to have a platinum coating, due to the amount of the metal deposited there. FTP, identify this drug whose name is a contraction

of the metal and the stereochemical relation of its ligands, which is not trans.

### \_CISPLATIN\_

7. French bread, the bourgeois "little man", the female torso, the tower, the comb, the train, the window, and the bowler hat: all of these are common symbols in the surrealistic paintings of this Belgian artist whose painting "The Castle of the Pyrenees" depicts a huge stone topped by a small castle floating above the sea.

### Rene \_MAGRITTE\_

8. Although he is now one of the most widely recognized literary figures of the 19th century, this American writer often encountered great financial troubles in his own time. Upon having 706 of his own unsold titles returned to him by a Boston book dealer, he remarked, "I now have nearly 900 volumes in my personal library, over 700 of which I have written myself." Name this famed Transcendentalist essayist and author.

### Henry David \_THOREAU\_

9. Originally taken from Isaiah 27:1, this word originally denoted any object of enormous size. However, its meaning has since expanded to connote a beast, a sea serpent, the bureaucracy, and power since the publication of Thomas Hobbes' work by the same name was introduced.

### \_LEVIATHAN\_

10. Ptolemy called them the Mountains of the Moon. Henry Stanley used a native name meaning Rainmaker. For ten points, name this range of snowy peaks on the border between Uganda and the Democratic Republic of the Congo.

### \_RUWENZORI\_ Range

11. They were skillful warriors, but nevertheless, they gained dominance through a slow and largely peaceful infiltration in the 14th to 15th centuries. Relations with the indigenous population--which their divine "mwami" or king dominated through cattle ownership--were amicable until favoritism shown by the Belgian colonial administration intensified animosities. The monarchy was overthrown in 1961, and race relations have since been genocidal. FTP, name this minority tribe of Burundi and Rwanda who adopted the Bantu language of the Hutus.

### \_TUTSI\_ (accept BATUSI, TUSSI, WATUSI, or WATUTSI)

12. The only player to win a League Championship Series MVP trophy in both the American and National Leagues, this pitcher achieved the distinction in 1995, winning two games for the American League Champion Cleveland Indians. His greatest moments, however, came seven years earlier, as he broke Don Drysdale's record for consecutive

shutout innings and pitched the Dodgers to a World Series victory. For ten points, name this bulldog and 1988 Cy Young Award Winner.

Orel HERSHISER

13. The term was first used by Charles A. Dana in the New York Sun. Led by Theodore Roosevelt, George Curtis, and Henry Cabot Lodge, they went against the grain and failed to support James G. Blaine. After the 1884 election, however, they rejoined the Republican ranks. For 10 points, identify this group of Republicans whose supported ushered Democratic Presidential nominee Grover Cleveland into the White House.

MUGWUMPs

14. Living from 1883 to 1955, this Spanish philosopher, writer, and statesman asserted humanism and individualism: "I am I and my circumstance." Perhaps his most influential works emerged from his analyses of Spain and Europe in the 1920's. FTP, name this author of *Invertebrate Spain*, *The Revolt of the Masses*, and *The Modern Theme*.

Jose ORTEGA y Gasset

15. In 461 BC he obtained the ostracism of Cimon and became supreme leader of the Athenian democracy. His "reign" saw salaried state officials, the supremacy of the assembly, a defeat of Persia, truce with Sparta, the transformation of the Delian League into an Athenian Empire, and the beginning of the Parthenon. He was one of the instigators of the Peloponnesian War and his death by plague soon after may have lost Athens the war. FTP, name this Athenian general and statesman.

PERICLES

16. During this woman's days at Lewis and Clark college, she didn't have much of a, um, reputation. Her mother was a bit well known, though, as the mother wrote a book which purported to detail sex with Luciano Pavarotti. And she might still be anonymous if Revlon had just needed one more employee. Name this daughter of Marcia Lewis, and client celebre of Plato Cacheris and William Ginsburg.

Monica LEWINSKY

17. This religion borrowed ideas from Buddhism, Christianity, Gnosticism, Mithraism, and Zoroastrianism. A form of dualism, it contained an elaborate cosmic mythology of salvation: Man was created by Satan, but had particles of divine light in him which had to be released. FTP, name this religion founded around 240 by a Persian sage named Mani which counted a young St. Thomas Aquinas among its adherents.

MANICHAISM

18. Born in 1599, he spent a year in England in 1620 at the request of James I. Thereafter

he went to Italy, where he made portraits of the Venetian and Genoese nobility. He then returned to Antwerp and painted pictures such as "The Vision of St. Augustine". For ten points, name this contemporary of Rubens who was made court painter by Charles I of England in 1632.

Sir Anthony \_VAN DYCK\_

19. He was born in Cambridge, Massachusetts, in 1894, and by the time of his death in 1962 he was the most widely read poet in America, next to Robert Frost. His experiences during World War I are related in his novel, *The Enormous Room*, but he is far more famous for his poetry, distinctive for its vivid, often frankly erotic language and its innovative punctuation (or lack of it). For ten points, name this poet, whose poems are collected in such books as *1 times 1* (1 x 1) and *And (&)*.

e e \_CUMMINGS\_

20. This half-sister of Aeneas rejected the advances of Apollo, who then gave her a gift along with a curse. For ten points, name this daughter of Priam and Hecuba, given the gift of prophecy along with the curse that no one would believe her, who was scorned for foretelling the fall of Troy.

\_CASSANDRA\_

21. A Kurd, he was the founder of the Ayubite (I-U-BITE) dynasty in Egypt. In 1171 he was established as Caliph there, and soon took possession of Syria. In 1177 he defeated the Christians, and he did so again on July 4, 1187 at the Battle of Tiberias at Hattin. He suffered several defeats at the hands of the Third Crusade, allowing Henry of Champagne to take Acre. Because of his clemency after his battles, he is regarded as a chivalrous infidel. Who is this Moslem king?

\_SALADIN\_

22. Literally denoted as Eoanthropus, or "dawn-man", the gravel deposit in which it was found has been dated to the third interglacial period, or about 50,000 to 100,000 years ago. The large cranial capacity of the skull exceeded any yet found for the period and thus promised to rewrite the history books, except that it was all a fraud, allegedly perpetrated by Sir Arthur Conan Doyle and others. For ten points, what early 20th century hoax was it?

\_PILTDOWN MAN\_

23. This pitcher, with his previous team, set the national league strikeout record for one game. Also with his previous team, he participated in the 1988 National league championship series, after winning 20 games. Now, he holds the record for most years between 20 win seasons, having just won 20 games for the American league cross-town counterparts of his previous team. Name this durable pitcher, formerly of the Mets and

now of the Yankees, who is now the second man in the Bronx bomber's rotation, behind Wells and ahead of Pettite.

David \_CONE\_

1998 Princeton Buzzerfest II  
Quarterfinals Bonus Questions

1. Name the native countries of the following sculptors, 5 pts. each, plus a 5 pt. bonus for all correct.

- |                         |                                 |
|-------------------------|---------------------------------|
| i. Alexander Calder     | A: <u>_U.S._</u>                |
| ii. Constantin Brancusi | A: <u>_ROMANIA_</u>             |
| iii. Gutzon Borglum     | A: <u>_U.S._</u>                |
| iv. Henry Moore         | A: <u>_BRITAIN_</u>             |
| v. Jean Arp             | A: <u>_GERMANY_ OR _FRANCE_</u> |

(he was born in Strasbourg)

2. It's time for fluid mechanics. Define the following terms for ten points each.

A. This property of fluid flow is measured in "stokes", equal to one centimetre squared per second. It can be thought of as the diffusion coefficient of momentum.

\_KINEMATIC VISCOSITY\_

(do not accept or prompt on merely "viscosity")

B. This number measures the turbulence of fluid flow, and is equal to velocity times length scale divided by kinematic viscosity.

\_REYNOLDS\_ NUMBER

C. In this type of flow, two infinite plates are held parallel to each other and a fluid is contained in the space between them. The moving fluid develops a parabolic velocity profile.

PLANE \_POISEUILLE\_ FLOW

3. Name the folksinger! (15 pts. each)

A. This member of the Weavers was blacklisted by the House Unamerican Activities Committee. His songs include "Where Have All the Flowers Gone," "If I Had a Hammer," "Kisses Sweeter Than Wine," and "Turn, Turn, Turn."

Pete \_SEEGER\_

B. He is well known for his Dust Bowl songs and songs about migrant workers. Among his many songs are "So Long (It's Been Good To Know Yuh)", "Roll on Columbia", and "This Land is Your Land".

Woody \_GUTHRIE\_

4. Excluding the small island nations of the South Pacific, the Equator passes through 9 countries. Five of them are in Africa. 15 for 2, 30 for all four, name the four others.

\_Ecuador\_ \_Colombia\_ \_Brazil\_ \_Indonesia\_

5. Given the biblical quote, name the speaker. Five points for each correct answer and a 5 point bonus for all correct.

A. "I do not know the man"

\_PETER\_ (accept DOUBTING PETER)

B. "Naked I came out of my mother's womb and naked I will return thither: the Lord gave, and the Lord hath taken away; blessed be the name of the Lord."

\_JOB\_

C. "After I am waxed old shall I have pleasure, my lord being old also?"

\_SARAH\_

D. "What have I done unto thee, that thou hast smitten me three times?"

\_BALAAM'S ASS\_

E. "Feed me, I pray thee, with that same red pottage, for I am faint."

\_ESAU\_

6. FTP apiece, identify the following fun facts about book-burning:

A. This Ch'in emperor attempted to blot out publishing by burning most books in 213 BC. Only books on law, horticulture, and herbal medicine were allowed in public.

\_SHIH\_ Huang Ti

B. The Dresden, Paris, and Madrid Codices are some of the few books written in the hieroglyphics of these peoples to survive book burnings by the Spanish clergy.

the \_MAYA\_ (accept MAYANS)



C. When Pope Alexander VI tried to win him over by offering to make him a cardinal, he replied: "A red hat? I want a hat of blood" (which is irrelevant but pretty cool). Few books were actually burned during the 1497 "burning of the vanities" he instigated in Florence, but lewd pictures, cards, and gaming tables got the torch, big-time.

Girolamo \_SAVONAROLA\_

7. For ten points each, name these basketball players who jumped straight from high school to the NBA, and who aren't named Kevin Garnett.

A. A lottery pick in 1997 out of Mt. Zion Christian Academy, he sat the bench through most of a disappointing rookie season.

Tracy \_MCGRADY\_

B. He might have played college ball but for a recruiting scandal at the University of Kentucky in 1988.

Shawn \_KEMP\_

C. The man who started it all, this Virginia high school legend went on to win league Most Valuable Player awards with the Houston Rockets and Philadelphia 76ers.

Moses \_MALONE\_

8. President Jimmy Carter may have left office looking defeated, but he did accomplish some major things in his four years in Washington. Please answer these questions concerning Carter's successes for the stated number of points.

A. In 1978, Carter met with two Middle Eastern leaders and brought an end to the declared war that had existed between them for 30 years. For five points apiece, name these two leaders.

Anwar el- \_SADAT\_ ; Menachem \_BEGIN\_

B. Carter also oversaw the division of one cabinet post into two. For five points apiece, name the two cabinet posts that were created in 1979 and 1980, and, for an additional 10 points, name the executive department whence the two posts came. This department was created under President Eisenhower, officially coming into existence on April 11, 1953.

Department of \_EDUCATION\_ (1979)

Department of \_HEALTH AND HUMAN SERVICES\_ (1980)



Department of HEALTH, EDUCATION, AND WELFARE

9. 30-20-10, name the class of objects.

30. An example of the three-body problem, they were predicted by Lagrange in 1772, 134 years before they were observed by Max Wolf.

20. They are located at the stable orbit position at approximately the third point of the equilateral triangle whose first vertex is the the Sun and second Jupiter.

10. Achilles, Hector, Nestor, Agamemnon, Odysseus, Ajax, Antilochus, Diomedes, and Menelaus are near the Lagrangian point 60 degrees ahead of Jupiter. Patroclus, Priamus, Aeneas, Anchises, and Troilus are about 60 degrees behind Jupiter. Note that Hector and Patroclus violate the naming convention based on these planetoids' names.

TROJAN PLANETS (also: TROJAN ASTEROIDS)

Do not accept "L4 asteroids" or "L5 asteroids" as they are insufficiently specific.)

10. Identify the Australian cities from the given information. Ten points each.

a) This city in Western Australia is home to the Golden Mile, allegedly the richest gold-bearing area on Earth.

KALGOORLIE

b) Australia's most notorious penal colony, this Tasmanian settlement housed convicts from 1830 to 1877.

PORT ARTHUR

c) The Northern Territory's second largest city is a tourist hub for trips into the Outback, including visits to Ayers Rock.

ALICE SPRINGS

11. In the world of systematic nomenclature, it is possible to name a compound in more than one way, especially if it has a common name. FTPE Identify the common name of the organic compound from a fancy-sounding systematic name:

A) Diamino ketone                      Answer: UREA

B) 1,3,5-cyclohexatriene              Answer: BENZENE

C) Trichloromethane                    Answer: CHLOROFORM

12. For ten points apiece and a total of thirty points for all three correct, identify the three cities, all southeast of Naples, destroyed by the eruption Mt. Vesuvius in A.D. 79.

\_POMPEII\_ \_HERCULANEUM\_ \_STABIAE\_

13. Given an island or island group, name the ocean in which it is located. Fifteen points on the first clue, ten if you need a second.

(15) Aldabra

(10) The Comoros

Answer: \_INDIAN\_ Ocean

(15) Tubuai Islands

(10) Kiribati

Answer: \_PACIFIC\_ Ocean

14. 30-20-10: identify the athlete

30: The all-time leading scorer for the Oshawa Generals, he appeared on a baseball card taking batting practice with the Toronto Blue Jays.

20: In 1992 he came within minutes of being dealt to the New York Rangers for a package that would have included goaltender Mike Richter.

10: In six years as a Flyer, he has disappointed Philadelphia fans by failing to lead his team to a Stanley Cup.

Eric \_LINDROS\_

15. Identify the apparatus used in analytical chemistry on a 5-10-15 basis

(5) A long thin tube with relative volumetric measurements indicated, usually with a stopcock on one end

\_BURET\_ (do not accept pipet; it has absolute measurements)

(10) A tightly sealed metal container immersed in a temperature-controlled water bath, used for measuring the heat of reaction.

\_BOMB CALORIMETER\_ (prompt on "Calorimeter")

(15) A tiny amount of sample, often less than a microgram, is ionized and accelerated

through an electric field to ascertain molecular weight in this high-vacuum apparatus

MASS SPECTROMETER

16. (30 points) For ten points each, identify these people, each of whom fought to make life a little better.

(a) This woman worked for workman's compensation, factory inspection, and juvenile court laws, but is best known for founding Hull House in Chicago, the first social settlement house.

Jane ADDAMS

(b) This U.S. reformer is famous for leading an "army" of unemployed in a march on Washington DC in 1894.

Jacob COXEY

(c) This man was a deputy of Martin Luther King Jr. and became leader of the SCLC upon the latter's assassination.

Ralph ABERNATHY

17. (30-20-10) Identify this literary land 30-20-10

(30) It is said to be "exactly circular, its diameter 7837 yards or about four miles and a half, and consequently contains ten thousand acres."

(20) The inhabitants are chiefly speculative philosophers, devoted to mathematics and music; and such is their habitual absent-mindedness, that they are compelled to employ attendants, called "flappers" to rouse them from their profound meditations by striking them gently on the mouth and ears with a peculiar instrument.

(10) It is a floating island

LAPUTA (from Gulliver's Travels)

18. Identify these meteor showers (fifteen points each):

A. Emerging from the constellation Draco on about October 9, every year on this date the earth encounters debris left from a comet.

DRACONID Shower

B. It occurs on August 11 of each year, and is the result of a mass of meteoroids that were also strewn into space as a result of the disintegration of a comet

PERSEID Shower

19. Nathanael West wrote only four novels in his unfortunately shortened career. For five points each and a ten point bonus for all correct, name them.

The DREAM LIFE OF BALSIO SNAIL

MISS LONELYHEARTS

The DAY OF THE LOCUST

A COOL MILLION

20. When the Pilgrims arrived at Plymouth in 1620 aboard the Mayflower, it was for some reason considered a big deal. In 1607 however, three ships under the command of Christopher Newport brought settlers to Jamestown, Virginia. For ten points apiece name these three predecessors of the Mayflower

SARAH CONSTANT, GOODSPEED (or Godspeed), DISCOVERY