

Upcoming Events

➤ **Darwin Day Birthday Gala** **Sunday, February 12, 2:30 – 5pm (Doors open 2 pm)**

It's Sacramento's coolest, singular, most go-to event of science and human reason, brought to you by area science advocates, civic groups and local nerds on too much coffee. The *20th anniversary* Darwin Day Gala will mark Charles Darwin's 208th birthday! And once again it will occur in the lofty John Smith Hall of the La Sierra Community Centre, in Carmichael.

Darwin Day, what's that? Just a science-rush like no other, an annual celebration of scientific inquiry honouring of the life and work of the great Charles Darwin (b. 12 February 1809), honoured worldwide by community and educational groups. It is not exactly an AOF event, but AOF helped establish it locally, and commends it now to all our friends in the Sacramento community of reason. Because, science. And what is science but reason in the trenches?

Doors will open at 2 *post meridiem*, the main program to begin at 2:30. Arrive early, tour the display tables, visit the vendors, grab some science swag, then find a cosy seat. Relax and enjoy the opening entertainment, to include a demonstration by Mad Science of Sacramento (<http://sacramento.madscience.org>). Then get ready for the feature: Dr. [Tom Suchanek](#), coastal marine ecologist and Scientist Emeritus with the **USGS Western Ecological Research Centre**. His topic: **The Reality of Climate Change: A Path Forward**.

Rounding the event will be more entertainment, snacks, and of course, yummy Darwin Birthday Cake. (It is a birthday party, after all.)

Admission just \$15 at the door, or \$5 with your current Student ID. For details visit the main event website, <http://sacdarwinday.info/>.

Location: John Smith Hall, La Sierra Community Centre, 5325 Engle Road, Carmichael

Contact: Bill, ph. 916-514-9974, or email president@hagsa.org

➤ **Philosophers' Table: Religion and Families** **Sunday, February 26, noon – 1pm**

Suppose mom is a believer and dad a non-, what then? How do they work out raising the kids? Can an atheist parent introduce the kid(s) to freedom from religion, without destroying the marriage?

Location: Sacramento Reason Center, 1824 Tribute Rd, Suite A. Map: <https://goo.gl/iVQL8z>.

➤ **The Eager-for-Spring Potluck Poetry Open-Mike Jam** **Sunday, February 26, 1pm - 3pm**

We weary of the cold and wet. So bring your favorite warm dish, your favorite hot poem, maybe bongos. We'll have fun!

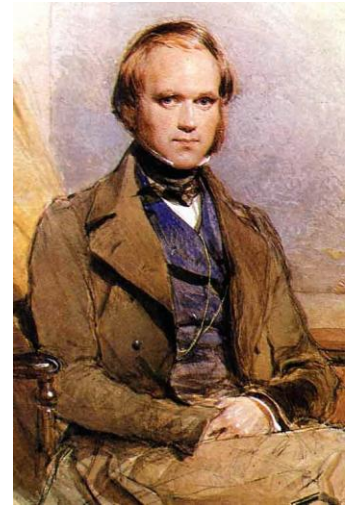
Location: Sacramento Reason Center, 1824 Tribute Rd, Suite A. Map: <https://goo.gl/iVQL8z>.

➤ **Adopt-a-Highway Cleanup** **Saturday, March 11, 9-11am**

In July 1995, Sacramento-area freethinkers "adopted" a two-mile stretch of Highway 99 from Elkhorn Boulevard to Elverta Road. Since then we have kept it clean of litter and debris, and received recognition for it. It is, in fact, one of our more successful civic efforts. It shows that freethinkers can also serve the community.

This time, join us! Enjoy a morning commune with nature, and do a deed for the environment and area wildlife. Trash that we collect would otherwise lead to a slow death for many creatures.

As usual, the activity captain will provide all safety equipment, including comfortable, natty hard-hats and gloves, stylish safety vests, collection bags, and handy trash pickers. The clean-up takes a scant two hours. Please dress for the season. Perhaps bring a backpack or fanny-pack to carry 3 or 4 trash bags.



Location: CalTrans Park-&-Ride lot, W. Elkhorn Blvd (see map at <https://goo.gl/maps/tYdW8mBbZc12>).
(Travel north from Sacramento on I-5, past the Sleeptrain Arena. Take the "Highway 99 - Yuba City, Marysville" exit. Exit at Elkhorn Boulevard less than a mile north. Turn left, cross the overpass, and the park-&-ride lot will be on your left.)
Contact: 916-447-2169 (Don Knutson), or see the AOF Contact Page (<http://www.aofonline.org/contact.html>).



A Test of Intelligent Design

The old idea of Intelligent Design returned in a review of Paul Davies, the noted physicist, science writer, and winner of the 1995 Templeton Prize for progress in religion. Davies is a rare fellow: a hardheaded physical scientist with a spiritual streak, the author of about 25 popular books, including *God and the New Physics*, *The Cosmic Blueprint*, *The Mind of God*, *The Last Three Minutes*, and a new one, *How to Build a Time Machine*.

Proponents of Intelligent Design, or ID, emphasize various "cosmic coincidences" and "fine tuning" of structure constants required for life-as-we-know-it, or LaWKI (you love acronyms, right?). The arguments are compelling and slick. For example, our universe has four fundamental forces, well maybe five, and the "big two" are way out of balance—gravity about 39 orders of magnitude weaker than electromagnetism, though scientists believe these are splinters of a single, fundamental *ur-force*. But were the ratio less lopsided, stars would collapse long before life had time to evolve (stronger gravity) or would never form (weaker gravity). Obviously some Grand Old Designer (call it, umm, GOD) has been tinkering, tuning things just so for LaWKI.

Naturalists have two rejoinders. First: life developed to fit our universe, not vice versa, hence an illusion of "tuning." After all, even on earth life seems pretty flexible and adaptive, with exotic sulfur-based creatures thriving in ocean-bottom hydrothermal vents, happy as clams in 380° C water kept liquid by hundreds of atmospheres of pressure. Not to mention other "extremophiles," subterranean microbial communities living kilometers under the earth at pressures of 70 tons per square inch, or even on the control rods of nuclear power plants! (For a review of some of these odd creatures, visit http://www.theguardians.com/Microbiology/gm_mbm04.htm.)

So if the constants were a bit off, pffft—we might not get LaWKI, but perhaps some other ongoing/growing/sustaining process not remotely like LaWKI. Let us call it *fweedle*. And then perhaps, after aeons, some unimaginable analogy to a cosmic church hall where the *fweedle* gathers to congratulate itself for being in a universe designed just for it, and no one else. (Or if *no* such processes develop, then no church hall, no one to wonder—and the question becomes moot.)

Second rejoinder: The real universe might be *big*, unimaginably big, even a "multiverse" of many, many universes. And on the cosmic scale, constants and boundary conditions might vary, from place to place, time to time, universe to universe. LaWKI just happened to develop within a suitable region of it. Given a near-infinity of choices, almost anything will happen somewhere, right? So the universe we're here to see will naturally be perceptually similar to a designed-for-us place.

Not entirely happy with these rejoinders, Paul Davies thought up a test, some difference we might expect to see between the "multiverse," "infinite variation" or "adaptive life" hypotheses *vis-à-vis* that of a cosmic designer.

Obviously, of all conceivable combinations of constants and conditions, only a tiny, tiny fraction are suitable for LaWKI. And of those, only a tiny, tiny fraction are optimally suitable. The vast majority would be marginally suitable, that is, near the outside limit bio-friendliness. Davies called it *minimal biophilicity*. So almost certainly, in an observable local universe within a vaster multiverse or megaverse of variable parameters, we'd expect some pretty hostile conditions.

On the other hand, an intelligently designed universe should be optimally biophilic—very "life friendly"—with all essential needs for life falling right into its lap (if the Designer is truly benign).

Which is it? In fact, overall, our local universe does *not* seem very friendly to LaWKI. In our solar system, only one planet thrives with advanced life. Radio telescopes don't pick up a lot of alien chatter. Life tends to be self-destructive. And most of all, if our local universe were optimally biophilic, bio-generating processes would not be so wasteful of resources. Life would not be the apparent side-effect of billions of years of stellar evolution; habitable systems would not be light years apart; useful bio-ingredients would not be so rare. (In fact, atoms comprise less than one tenth of 1% of the universe's mass; photons overwhelm atoms by a factor of a billion.) In short, LaWKI seems to live on the edge of possibility, hanging by a thread, tucked into the tiniest interstice, suffocated by silence, and facing cosmic night on either side.

Based on Davies's test, the data do indeed seem to lean towards the "megaverse" or "infinite variation" hypotheses—and away from ID.

Davies had other cavils and alternatives, but this it seems is enough to trounce ID, at least till it comes back in a more useful form. Until then, search out a copy of *Skeptical Briefs*, Vol. 15, No. 1 ("Davies's Third Way"), for the original article by science writer Vic Stenger.

Ken Nahigian, 31 May 2005



When you donate blood...

Please consider donating blood at Sacramento's BloodSource, and if you do, use AOF BloodSource ID# 4857. Numerous BloodSource Donation Centers exist – find them listed at <http://www.bloodsource.org/Locations>.

AOF gets no perks when members donate, but it saves lives, and is good for public relations. And what can be more sweetly Humanistic than donating blood?

Support the Reason Center

Viva Reason Center! It opened in July 2014 and is still thriving. "RC" has hosted well over 200 freethought events, and currently has twelve partner organizations.

Its mission is to support a social and intellectual community for freethinkers, contribute to society through education and community service, advance the civic understanding and acceptance of freethinkers, and uphold the separation of religion and government.

But will it continue? Reason Center relies on continued support from members and donors. Please become a Reason Center member, or even make a one-time donation. Visit the website, ReasonCenter.org, to see how to do either.



Not a member of Atheists and Other Freethinkers? Let's fix that!

AOF is a 501(c)(3) non-profit association, FEIN 68-0325762. General Meetings are free and open to the public. AOF also hosts civic service projects, dinners, movie nights, parties! To see what awaits you, visit the website, www.aofonline.org; or contact AOF at our 24/7 voice-mail: 916-447-3589; or write to PO Box 15182, Sacramento, CA 95851-0182. Or read this wonderful newsletter.

AOF President: Brad Clark. Vice-president: Mynga Futrell. Editor: Fran Evanisko. And all the rest of us, their peanut gallery.

Subscription / Membership Form

Mail to: AOF, PO Box 15182, Sacramento CA 95851-0182 (Attn: Membership)

Name(s) _____ Phone: _____

Street _____ Apt. # _____

City _____ State _____ ZIP + 4 _____

E-mail address (please print!) _____

E-mail is required for newsletter delivery.

Questions, concerns? Call AOF, 916-304-3796.

Your Membership Level (annual, please circle):

Patron (\$50) Family (\$30) Individual (\$20) Low-income (\$10)

Basic Dues : \$ _____

Additional Donation : \$ _____

Total enclosed : \$ _____

Please check here if you do NOT want your name on lists occasionally provided to groups similar to AOF.

Please check here if you DO want to be an AOF Activist (e-mail address required).

AOF is a 501(c)(3) Educational Association, EIN 68-0325762. Dues & Donations are tax-deductible as permitted by law. Non-members may receive the AOF Newsletter for free on request (email only).

"The purpose of Atheists and Other Freethinkers (AOF) is to promote the civic understanding of atheism and the acceptance of atheists in our community. Through educational programs, projects, and publications, AOF will extend secular perspectives, including the separation of religion and government and the right to think and speak freely on these perspectives."

