

SAN DIEGO ASSOCIATION OF GEOLOGISTS

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SDAG MEETING ANNOUNCEMENT

Wednesday, October 16, 2024

Where: Phil's BBQ Event Center
3740 Sports Arena Blvd.
San Diego, CA 92110

When: 6:00 pm - Social Hour
6:45 pm - Dinner
8:00 pm - Program

Dinner: BBQ Tri-Tip Sandwich, Pulled Pork Sandwich, Veggie Garden Burger, Cash Bar

Cost: \$49.00 Member; Non-Member \$59.00; Student \$25.00

Reservations: Make/Pay your reservation [online](#) through the SDAG website, by **Midnight Friday, October 11**. (*Please note beginning January 2024 all meeting reservations will require on-line pre-payment due to venue costs, venue contracts, and loss of money due to no shows.*)

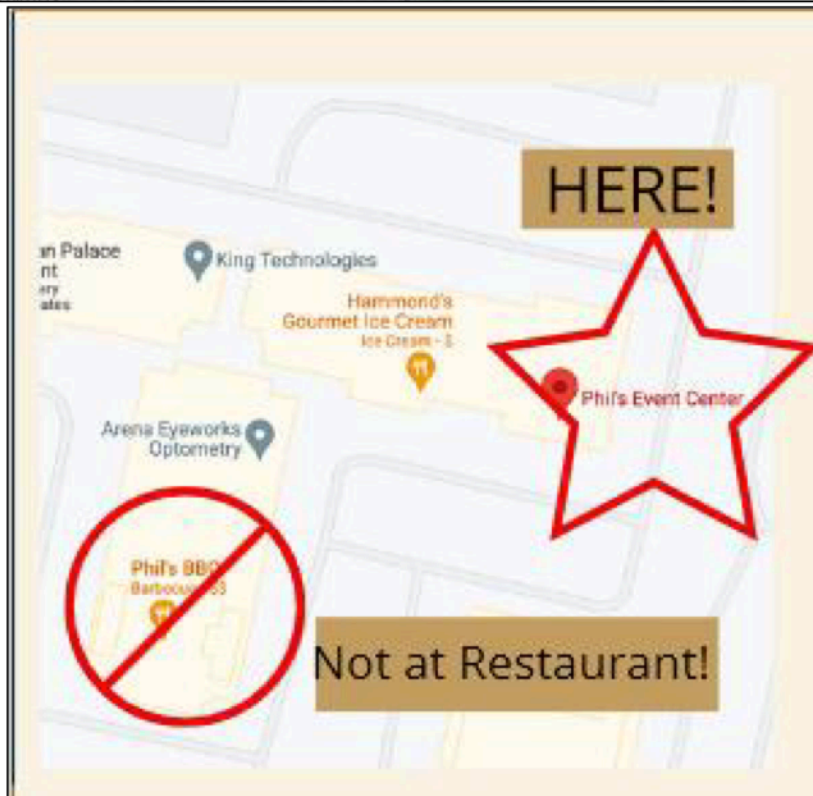
Speaker: Dr. Michael Ziegler

Title: Gravity, Weightlessness, and Astronauts

Abstract: Our understanding of gravity has changed from Aristotle to Galileo, Newton, and then Einstein. Einstein's theories have correctly predicted many recently measured phenomena, but cannot account for the shape of the Universe. We fill in the gaps in our understanding of gravity with a cheat factor called dark matter to explain the existence and shape of nebulae, including the Milky Way. The heavy elements were synthesized in supernovas and in gravity dependent phenomena such as the merger of neutron stars. We all realize that the Earth could not exist without gravity, but orbital space flight has shown that our health depends on gravity as well. I will review 40 years of research that shows how you got out of bed this morning without fainting, how weightlessness affects the health of astronauts, what we currently do to allow astronauts to switch between gravity and weightlessness, and the challenges of long term weightless flight to Mars and back.

The venue location is not the restaurant, but the Phil's BBQ Event Center, in the same parking lot.

Meeting Location Map:



Directions:

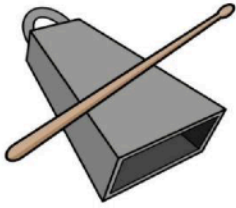
From I-8:

1. Take I-8 W toward Sunset Cliffs Blvd
2. Use the 2nd from the right lane to take exit 1 for W Mission Bay Dr W/Sports Arena Blvd
3. Use the left lane to turn left onto Sports Arena Blvd
4. In 0.3 miles, turn left to stay on Sports Arena Blvd
5. Phil's BBQ Event Center is on the left in 0.2 miles



Speaker: Dr. Michael Ziegler

Bio: Michael Ziegler (MD, U. of Chicago) aka 'Carole's spouse' began study of human responses to gravity at the National Institutes of Health where he outfitted a Chevy Suburban as a mobile lab and tested people who fainted when they stood driving from Quebec Canada to Atlanta Georgia with Carole's assistance. While in Galveston he studied Air Force pilots and pigs in a human centrifuge with forces up to 9 G and astronauts after zero G. At UCSD he worked with the cardiovascular lab of NASA to test astronauts at Edwards AFB and Cape Canaveral at landing. He tested identical twins after a month of head down bed rest while Director of the UCSD Clinical Research Center and took part in the 'Year in Space' study of Scott Kelly and his identical twin Senator Mark Kelly. As Chair of the NASA Cardiovascular Review Committee he summarized the challenges humans will face on a spaceflight to Mars.



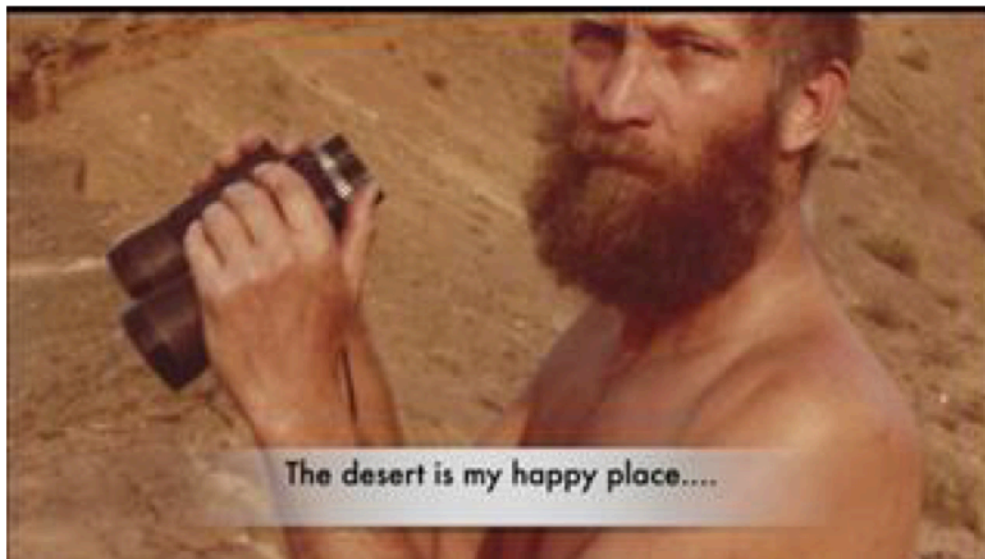
President's Cowbell Corner

Sadly, the 2024 SDAG Annual Field Trip needed to be postponed due to the devastating Bridge Fire in the San Gabriel Mountains. The fire homed in on the Wrightwood and Big Pine area a couple of days after starting on the other side of the mountain on September 8. The field trip itinerary, as well as our camping and lodging area at Lion's Camp, was thoroughly impacted. Our only choice was to wait for another time. That time has been re-scheduled to September 25-28, 2025. This is a monumental field trip, based on the San Andreas Fault, organized by SDAG Vice President Heather Reynolds and Dr. Miles Kenney, with major input from Monte Marshall. The Field Trip Guidebook will be published and available soon. More information to follow. Our hearts are with the Wrightwood residents and businesses that have suffered through this tragic event.

For our October meeting, we have SDAG's own Carole Ziegler's husband Mike on board to give a fascinating talk on gravitation and how it affects astronauts and the rest of us. By request, we moved the meeting to Phil's BBQ, and we will plan to get back to Casa Guadalajara again soon.

Be on the lookout for an early newsletter for November — our November meeting will be on the first Monday of November 6th. It will be a joint meeting with AEG, to be held at the Fallbrook Gem & Mineral Society. We look forward to seeing all of you there!

- John



Charles Franklin Lough (1930 - 2024)

Memorial YouTube Link

<https://youtu.be/KF0zcqaTOpc?feature=shared>

UPCOMING 2024 SDAG MEETINGS

October 16, 2024	Dr. Mike Ziegler (Carole Z's husband) on gravitation, at Phil's BBQ Point Loma Event Center
*November 6, 2024 (1st Wednesday)	Joint Meeting with AEG Inland Empire Section / Jahn's Lecturer Cynthia Palomares at Fallbrook Gem & Mineral Society.
December 18, 2024	Traditional Holiday Celebration at the NAT with Tom Demere.

*Departure in regularly scheduled meeting date (**Highlights**)

August 2024 SDAG Meeting at Bali Hai with Dr. Pat Abbott



SDAG PUBLICATIONS

<https://www.sandiegoeologists.org/Publications.html>

JOB ANNOUNCEMENTS

<https://www.sandiegoeologists.org/Jobs.html>

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Renew or become a new SDAG Member - 2025 Member Dues are Due!

On-line Payment (\$30 Member; \$10 Student):

<https://www.sandiegoeologists.org/MemberForm.pdf>

Mail in or Bring FORM to Meeting:

<https://www.sandiegoeologists.org/MemberForm.pdf>

DID YOU KNOW THAT SDAG HAS A FACEBOOK PAGE?

Here is a link to the SDAG Facebook page:

<https://www.facebook.com/sandiegoeologists.org>

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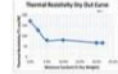
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