TOTAL SOLAR ECLIPSE

Chile and the Skies of the Southern Hemisphere

June 25–July 6, 2019

WITH Gibor Basri
Professor Emeritus of Astronomy,
Astronomy Climate Advisor UC Berkeley
On July 2, 2019, join Cal alumni and friends to witness a total solar eclipse at a unique location—the north of Chile, home to world-class astronomical observatories. In the company of Gibor Basri, Professor Emeritus of Astronomy, Astronomy Climate Advisor UC Berkeley, enjoy special access to state-of-the-art observatories in the desert including: the Atacama Large Millimeter/submillimeter Array, also known as ALMA, the world’s most powerful radio telescope, Paranal, home to the Very Large Telescope, and La Silla, with two 3.6-meter telescopes, including the New Technology Telescope (NTT). Your journey also includes an exploration of the Atacama Desert with some of the most extraordinary landscapes of our planet—volcanoes, evaporated salt lakes, lagoons, geysers and hot springs as well as a host of animal life. Top this off with stargazing in the Southern Hemisphere. Visit the Elqui Valley, a pisco distillery and Isla Demas part of the Humboldt Penguin National Reserve. Conclude your adventure with lunch and a tasting of select vintages in Chile’s Maipo Valley wine-producing region.

Space for this program has already filled quickly, so call today to secure your place on a unique tour to witness a spectacular total solar eclipse as well as the remarkable observatories and natural history of northern Chile.

Go Bears!
Cal Discoveries Travel

THE CAL DISCOVERIES TRAVEL DIFFERENCE

Our goal is to provide the University of California, Berkeley community with an exciting combination of discovery, learning, and adventure in educationally oriented travel. When you travel with Cal Discoveries Travel, you can be assured that we understand your desire for a strong educational component, a carefully selected destination, and a Cal connection on every trip.

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• Receive outstanding customer service from Cal Discoveries Travel staff with more than 40 years expertise
• Meet new friends and old, and find interesting, inquisitive travel companions who have Cal in common

The Cal Alumni Association (CAA) is a self-funded nonprofit organization that relies on donations to provide programs and services that support students, alumni, and the University. To make a gift, please visit alumni.berkeley.edu/give. Thank you for choosing CAA as the recipient of your generosity.
Gibor Basri received his B.S. in Physics from Stanford University (1973) and a Ph.D. in Astrophysics from the University of Colorado, Boulder (1979). An award of a Chancellor’s Postdoctoral Fellowship then brought him to the University of California, Berkeley. He joined the faculty of the Berkeley Astronomy Department in 1982, and became a full professor in 1994. A thread that runs through all his areas of research is magnetic activity on the Sun and other stars. He was a discoverer of and early pioneer in the study of brown dwarfs, has studied star formation, and been active in the debate on “what is a planet?”. Professor Basri has extensively used telescopes at the Lick and Keck Observatories, along with space telescopes. He was a Co-Investigator on NASA’s Kepler mission, which has revolutionized our knowledge about exoplanets. In 2007 he also became the founding Vice Chancellor for Equity and Inclusion at UC Berkeley, and in 2015 he received the Berkeley Citation (campus’ highest honor) upon retiring. In 2016 he received the Carl Sagan Award for Popularizing Science. He is still very active with students and research, currently utilizing Kepler photometry to understand star spots.
**ITINERARY**

**DAY 1 TUESDAY, JUNE 25**
U.S. ✈ Santiago
Depart from your home city for an overnight flight for Santiago, the capital of Chile.
**OVERNIGHT FLIGHT (MEALS ALOFT)**

**DAY 2 WEDNESDAY, JUNE 26**
Santiago
Arrive this morning in Santiago and transfer to your hotel. An afternoon city tour including a tour of the Pre-Columbian Museum will introduce us to this city at the foot of the Andes. This evening gather for an orientation and welcome dinner.

**DAY 3 THURSDAY, JUNE 27**
Santiago ✈ Calama ✈ San Pedro de Atacama
This morning fly north to Calama and transfer to San Pedro de Atacama for a three-night stay. On the way, we will pass the Cordillera de la Sal, the Salt Mountains. Shaped over time by the rain, wind and sun of the Atacama Desert, its final form as we know it today is full of natural sculptures, different types of stratifications and colors vary due to its mineral diversity. In the evening, we visit the Moon Valley with its extraordinary landscape caused by the erosion of the Salt Mountains.

**DAY 4 FRIDAY, JUNE 28**
San Pedro de Atacama ✈ El Tatio Geyser ✈ Puritama Hot Springs ✈ Stargazing

Early morning departure (around 5am) to reach the other-worldly El Tatio Geyser in time for sunrise. Situated at an altitude of 14,170 feet (4,320 m), this is one of the highest geothermal areas on Earth. Be sure to bring warm clothing and gloves! Continue to the Termas de Puritama Hot Springs, for an opportunity to bathe in warm mineral waters. The remainder of the afternoon is at leisure for independent exploration of the town of San Pedro de Atacama. This evening, travel a short distance from town to the San Pedro de Atacama Celestial Explorations (SPACE), a privately-owned complex of telescopes designed to thrill you with views of the southern sky under the expert guidance of astronomer-owner Alain Maury or another staff astronomer.

**DAY 5 SATURDAY, JUNE 29**
San Pedro de Atacama ✈ Atacama Salt Flats ✈ ALMA

This morning we will explore the immense Atacama Salt Flats, known locally as the Salar de Atacama including the Chaxa Lagoon, the entry point to the National Flamingo Reserve. The reserve is home to a variety of birds, including the Andean flamingo, Chilean flamingo, horned coot, silvery grebe, Andean gull and greenish yellow finch. This afternoon, visit the most complex astronomical observatory ever built, the Atacama Large Millimeter/submillimeter Array, or ALMA as it is commonly referred to. While at ALMA (the operations facilities are located at 9,514 feet) we will visit the control room, laboratories, an antenna transporter and possibly antenna under maintenance. There may be an opportunity (pending additional permits and final confirmation) to visit the antenna installation. This visit will be optional and require participants travel from the base station laboratories to the Chajnantor Plateau located at 16,000 feet. Participants who wish to make this visit will need to be in excellent health. A medical release form (signed by your physician) will be mandatory. Additional information regarding the status of the antenna installation visit and the medical release form will be included in your pre-tour documents.

**DAY 6 SUNDAY, JUNE 30**
San Pedro de Atacama ✈ Antofagasta
Transfer by motor coach to Antofagasta. After lunch is at leisure for independent exploration. Enjoy a lecture at the hotel this afternoon.

**DAY 7 MONDAY, JULY 1**
Antofagasta ✈ Paranal Observatory ✈ La Serena
Depart by motor coach to the Paranal Observatory (pending final confirmation),
before driving to the airport for our overnight flights home.

OVERNIGHT FLIGHT (B, L)

DAY 12 SATURDAY, JULY 6
Arrive U.S.
Arrive in the U.S. and connect with flights home.

home of the ‘Very Large Telescope’ often described as the world’s largest optical telescope. Located atop Cerro Paranal in the Atacama Desert, it has 4 telescopes of 8.2 meters in diameter. The Paranal Mountain was chosen because of its excellent atmospheric conditions and remote location. After touring the facilities, we’ll transfer to the airport for late afternoon flight to La Serena. DIEGO DE ALMAGRO (B, D)

DAY 8 TUESDAY, JULY 2
La Serena ✴ Eclipse Viewing Site in Vicuña
We’ll transfer outside La Serena by motor coach to the eclipse viewing site in Vicuña which is directly along the path of totality. The area is dominated by a mountainous backdrop and extensive plains on the valley floor, where high-quality grapes for pisco are grown along with other fruits and vegetables. Late in the day gather for your eclipse viewing party. Afterwards, return to the hotel.

DIEGO DE ALMAGRO (B, PICNIC L, D)

DAY 9 WEDNESDAY, JULY 3
La Serena ✴ La Silla Observatory
Today we travel north along the Pan-American Highway for a tour of La Silla Observatory (pending final confirmation) in the Chilean Andes. Like other observatories in this geographical area, La Silla is located far from sources of light pollution, and it boasts some of the darkest night skies on Earth. La Silla has been a European Southern Observatory stronghold since the 1960s. Here ESO operates two 3.6-m telescopes, including the New Technology Telescope (NTT). It currently employs around 250 people, and 700 to 1,000 professional astronomers visit each year. Enjoy a late afternoon on your own in La Serena before dinner at our hotel.

DIEGO DE ALMAGRO (B, L, D)

DAY 10 THURSDAY, JULY 4
La Serena ✴ Isla Damas ✴ Santiago
Excursion to Isla Damas, part of the Humboldt National Park, for an opportunity to observe the Humboldt Penguins, other birdlife, and sea lions. Keep an eye out for bottle-nose dolphins, as they have been known to swim along with the boats. After lunch at a local restaurant, take a late afternoon or early evening flight back to Santiago.

PLAZA EL BOSQUE EBRO HOTEL (B, L)

DAY 11 FRIDAY, JULY 5
Santiago ✴ Santa Rita Winery ✴ Depart U.S.
Today we explore the beautiful valleys and wineries of Chile’s central region where renowned Chilean wines are produced. Later we’ll gather in the gardens of the historical Viña Santa Rita for a farewell lunch and wine tasting. We return to our hotel and the remainder of our afternoon is unscheduled before driving to the airport for our overnight flights home.

OVERNIGHT FLIGHT (B, L)

PROGRAM NOTE: Chile will be a prime location to experience the Total Solar Eclipse. We will provide an optimal viewing location to experience this phenomenon. Please keep in mind that viewing the eclipse will be weather dependent. Since we have no control over the weather, there is always a chance that we will not be able to view it or view it only for a short period of time. Also, we will be visiting working observatories located in remote regions of Chile, so our schedule will rely on precise timings. Keep in mind that unexpected schedule changes could affect the program. Your Travel Director will keep you fully informed of any changes to planned activities. A sense of humor, flexibility, and patience will be greatly appreciated during this program and especially on eclipse day!
WHAT TO EXPECT

This exclusive expedition is designed for Cal Alumni and friends who are interested in learning about the astronomy and experiencing a total solar eclipse as well as the wildlife, geology, and superb natural landscapes of northern Chile. Walks will be from one to two miles and at times over rocky, dusty, and uneven terrain and at high elevations. The pace of the walks will be leisurely. Some of the excursions in the Atacama Desert can reach (for a short time) altitudes of 14,000 feet. The visit to the Paranal Observatory is at approximately 8,645 feet and to La Silla Observatory is at 7,900 feet. An optional visit (pending final confirmation) to the antenna instillation at Atacama Large Millimeter/submillimeter Array will be at 16,000 feet. All the hotels are located at what are considered comfortable elevations. Roadways can be narrow with steep ascents/descents and at times rocky, unpaved, and dusty. Drives can be up to four hours depending on the excursion. Clothing that can be layered, as well as sunblock, sun hat, sunglasses, and comfortable walking shoes with a sturdy tread will be essential on this trip. Eclipse viewing glasses will be provided for the Eclipse Day. To enjoy this experience, participants must be in good physical and mental health, and be able to keep up with the pace of the group. Program participants requiring extraordinary assistance must be accompanied by someone who can and will provide all required assistance. We describe this trip as moderately active. Travel is by jet aircraft, boat, and motor coach.

PROGRAM COST INCLUDES

Study leader’s lectures and discussions • Accommodations and meals as specified in the itinerary • Wine with included dinners and farewell lunch • All land transportation • Three in-tour flights from: Santiago to Calama, Antofagasta to La Serena, La Serena to Santiago, provided increases in the in-tour airfare after the initial pricing of this program are not included – see below • Professional guides and tour director throughout • Gratuities to local guides and drivers • Airport transfers for group flights • Domestic airport departure taxes • Entrance fees • Eclipse viewing site • Eclipse viewing glasses • Baggage handling • Pre-departure information.

PROGRAM COST DOES NOT INCLUDE

US domestic and international airfare • Passport Fees, • Meals not specified in the itinerary • Personal items such as laundry, fax, e-mail, wi-fi or telephone calls • Liquor • Room service • Excess baggage charges • Private transfers • Medical expenses • Travel insurance • Deviations from the scheduled tour • Any increases in the in-tour airfare (included as part of the main program cost), security, or fuel surcharges imposed after the initial pricing of this program are not included • Tip to the tour director is at the passenger’s discretion.

PROGRAM COST

Land Program Cost………………………………………………………………………………….. $8,990
(Per person double occupancy)

Single Supplement…………………………………………………………………………… $1,600
(Limited availability)

SAMPLE COACH AIRFARE

SFO/Santiago/SFO …………………………………………………………………………………… $1,200
(As of March 2018 and subject to change)

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GENERAL INFORMATION

RESERVATIONS, DEPOSITS & FINAL PAYMENT: To reserve your space on this program, a $1,000 deposit is required per person. A second deposit of $2,000 per passenger will be due on or before June 1, 2018. Fill out and mail or fax the registration form. Deposits may be charged to a credit card. Reservations are acknowledged in order of receipt. Final payment is due February 25, 2019; 120 days prior to departure and must be paid by check. Royal Adventures handles all invoicing.

CANCELLATIONS AND REFUNDS: All cancellations must be submitted in writing to the Cal Discoveries Travel office. Cancellations within 14 days of booking: full refund; cancellations received up to 120 days prior to departure will be assessed a cancellation fee equal to the full amount of deposits paid. Cancellations received within 120 days prior to departure are subject to 100% penalty of all deposits and payments, regardless of booking date. There are no refunds for unused meals, accommodations or other trip features.

CHANGES IN ITINERARY: The itinerary is subject to change at the discretion of the Cal Discoveries Travel and the tour operator, Royal Adventures.

RATES: Tour costs are based upon current airfares, tariffs, and currency values. While we do everything possible to maintain the listed prices, they are subject to change.

INSURANCE: We highly recommend the purchase of trip cancellation insurance. Travel insurance information is provided via email by the Cal Discoveries Travel office upon confirmation of your reservation. To research insurance options on your own please visit: travelinsurance.com/calalumni.

RESPONSIBILITY: Royal Adventures, its owners and employees act only as an agent for the various independent suppliers and contractors providing transportation, hotel accommodations, restaurant and other services connected with this tour. Such travel and services are subject to the terms and conditions under which such accommodations, services and transportation are offered or provided, and the Cal Alumni Association (CAA) and Cal Discoveries Travel (CDT) and Royal Adventures have no responsibility for errors in information presented in this publication. Neither the CAA and CDT nor Royal Adventures are responsible for any error, loss, accident, delay or other irregularity which may be caused by the defect of any aircraft or vehicle or the negligence or default of any company or person engaged in carrying out or performing any of the services involved. Additionally, responsibility is not accepted for losses, injury, damages or expenses of any kind, including without limitation, those resulting from illness, bites or attacks by animals, insects or pests, weather, earthquake, floods, strikes, local laws, hostilities, wars, terrorist acts, acts of nature, quarantine, force majeure, injury including: eye injury, altitude related sickness, the lack or availability of medical attention or quality thereof or other such causes. All services and accommodations are subject to the laws of the country in which they are provided. CAA, CDT and Royal Adventures reserve the right to make changes in the published itinerary whenever, in their sole judgment, conditions warrant, or if they deem it necessary for the comfort, convenience or safety of the tour participants. They reserve the right to withdraw this tour without penalty, in which case participants will be issued a full refund, except if the tour is cancelled due to force majeure or other forces beyond our control in which case the recoverable portion of unused services or accommodations will be refunded. The right is also reserved to decline to accept or retain any person as a member of the tour, or to substitute another qualified leader or special guest. Baggage and personal effects are the sole responsibility of the owners at all times. The price of the program is given in good faith based on current tariffs and rates, and is subject to change. Any tariff, exchange rate, or fuel increases will be passed onto participants. CAA, CDT and Royal Adventures do not accept the liability for any airline cancellation penalty incurred by the purchase of a nonrefundable airline ticket. The air ticket when issued shall constitute the sole contract between the passenger and the airline concerned. All cancellations must be made in writing. There are no refunds for unused meals, accommodations, or other features. Because the total solar eclipse will be weather dependent, there is always a chance that passengers will not be able to view it or only for a short period of time. Neither Royal Adventures nor CAA or CDT make any guarantees as to the viewing of the total solar eclipse. As part of the consideration and right to participate in this tour, each participant will be asked to sign a liability release.

DISCLAIMER: Every reasonable effort has been made to ensure the accuracy of information presented in this publication. Neither the CAA and CDT nor Royal Adventures is responsible for errors in or damages resulting from use of the information contained herein. Information contained in this brochure is subject to change.

QUESTIONS: Please contact Cal Discoveries Travel at 510.900.8222, 888.225.2586 or alumni.berkeley.edu/caldiscoveries for details.

CAA Membership Policy: One traveler per room, whether an alumni or friend, must be a current Cal Alumni Association member at the time of departure to participate in Cal Discoveries Travel offerings. Payment of $60 for seniors 65 years and over and $75 for others establishes a regular or affiliate membership with all other Association benefits. Memberships are for individuals only, and are non-refundable and non-transferable. A traveling pair and their children under 21 years of age may travel on one membership. Please make dues payable to CAA by separate check, or, if you prefer, provide a Visa, MasterCard, Discover, or American Express number with expiration date for payment. You can also enroll online at alumni.berkeley.edu/join.

RESERVATION FORM

TOTAL SOLAR ECLIPSE
Chile and the Skies of the Southern Hemisphere

Enclosed is my/our deposit for __________ person(s) on Total Solar Eclipse: Chile and the Skies of the Southern Hemisphere departing June 25, 2019. I/We understand that a second deposit of $2,000 per person will be due June 1, 2018 and that final payment by check only is due February 25, 2019.

Please authorize credit card payment or make a check payable to Royal Adventures, and send, along with completed reservation form, to: Cal Discoveries Travel, 1 Alumni House, Berkeley, CA 94720-7520. Phone: 510.900.8222, Toll Free: 888.225.2586. Fax: 510.642.6100. Email: caldiscoveries@alumni.berkeley.edu Website: alumni.berkeley.edu/caldiscoveries

NAME AS ON PASSPORT    DATE OF BIRTH    CAL CLASS YEAR

NAME AS ON PASSPORT    DATE OF BIRTH    CAL CLASS YEAR

PREFERRED NAME(S) ON BADGE(S)

CONTACT INFORMATION

ADDRESS

CITY/STATE/ZIP CODE

HOME PHONE    CELL PHONE

E-MAIL(S)

PAYMENT OPTIONS

☐ Pay by check made out to “Royal Adventures”

☐ Please charge the deposit of $_________ ($1,000 per person) to:

☐ AMEX ☐ Visa ☐ MasterCard ☐ Discover Card

CARD #

EXP. DATE    SEC. CODE

ACCOMMODATIONS

☐ I will share a room with __________

☐ I request a single room (limited availability)

I/We have carefully read the Terms and Conditions and Responsibility sections of this brochure and agree to their terms on behalf of myself and of my party named above.

SIGNATURE    DATE

SIGNATURE    DATE
CHLOROPLAST
of the Southern Hemisphere
ECLIPSE
June 25–July 6, 2019

HIGHLIGHTS

• OBSERVE the 2019 Total Solar Eclipse at a special viewing site outside La Serena, Chile.
• GO BEHIND-THE-SCENES at some of the most advanced and largest observatories in the world with special entry to the Atacama Large Millimeter/submillimeter Array (ALMA), Paranal, and La Silla Observatories (pending final confirmation).
• EXPLORE dazzling night skies with large amateur telescopes in the Atacama Desert.
• ENJOY the dramatic scenery of the Andean north with its unusual wildlife, including the Andean flamingo, vicuña, and vicacha. Visit the Elqui Valley, an oasis in a very arid landscape.
• VISIT El Tatio Geysers, the world’s highest geothermal field.
• TOUR a Pisco distillery, spend a day in Chile’s wine country, and explore Santiago with a visit to the premier Pre-Columbian Museum of Art.