

PRE-MEETING ACTIVITIES

THURSDAY, 27 JULY 2017

3:00 PM–10:00 PM	Lodging Registration	Maple Hall Lobby
3:00 PM–10:00 PM	ASA Meeting Registration *	Maple Hall Lobby
5:00 PM–6:30 PM	Dinner	Mines Market

* ASA Meeting Registration moves Friday to Student Center Ballroom DE

FRIDAY, 28 JULY 2017

7:00 AM–8:00 AM	Breakfast	Mines Market
8:00 AM–8:30 PM	ASA Registration Table	Student Center Ballroom DE
8:00 AM–5:00 PM	Exhibit and Book Room Set-Up	Student Center Ballroom DE
8:00 AM–8:30 PM	Poster Set-Up	Student Center Ballroom DE
8:00 AM–10:00 PM	Lodging Registration	Maple Hall Lobby
8:00 AM–5:00 PM	Field Trip: Rocky Mountain National Park *	Parking Lot E
8:30 AM–4:00 PM	Field Trip: Denver Front Range Geology Tour *	Parking Lot E
8:30 AM–12:00 PM	Field Trip: National Renewable Energy Laboratory (NREL) Tour *	Parking Lot E
10:00 AM–4:00 PM	Field Trip: Coors Brewery Self-Tour	Sign up at the ASA Registration Table to connect with others
11:30 AM–1:30 PM	Lunch	Mines Market
1:30 PM–5:00 PM	Workshop: The Energy, Environment, and Ethics Nexus Brent Nelson , facilitator	Brown W210

* Please arrive 15 minutes before departure time.

PROGRAM SCHEDULE

FRIDAY, 28 JULY 2017

5:15 PM 6:30 PM	Dinner	Mines Market
5:15 PM 6:30 PM	First-Time Attendees Dinner Meetup	Mines Market Private Dining Room
7:00 PM 7:30 PM	Welcome, Introductions, Announcements <ul style="list-style-type: none"> • Leslie Wickman, ASA Executive Director • Vicki Best, ASA Director of Operations and Development • Stephen Moshier, Executive Council President • Gregory Jackson, Professor and Head of the Department of Mechanical Engineering at Colorado School of Mines • Ken and Cheryl Touryan, Local Arrangements Co-chairs • Lynn Billman, Program Chair 	Student Center Grand Ballroom
7:30 PM 8:30 PM	Plenary I: Annabelle Pratt , “Modernizing the Electric Grid: Why and How?” Moderator: Lynn Billman	Student Center Grand Ballroom (8)
8:30 PM 10:00 PM	Mixer	Maple Community Room
8:30 PM	ASA Registration Table closes	Student Center Ballroom DE
10:00 PM	Lodging Registration closes	Maple Hall Lobby

PLEASE NOTE: Abstracts are found on the page numbers within the parentheses.

SATURDAY, 29 JULY 2017				
6:00 AM	Morning walk sponsored by the ASA Christian Women in Science affiliate; all are welcome			Meet in Maple Hall Lobby
7:00 AM	Breakfast			Mines Market
7:00 AM	Student/Early Career Breakfast Meetup			Mines Market Private Dining Room
8:15 AM	ASA Registration Table			Student Center Ballroom DE
8:20 AM	Devotions. Devotional: Deborah Shepherd Faith Worship: Sara Sherman , worship leader; Keith Kemerer , vocals; & Cindi Birney , piano			Student Center Grand Ballroom
8:40 AM 9:45 AM	Plenary II. <i>Christianity Today</i> proudly sponsors this session, greetings from Rebecca Randall Katharine Hayhoe , "Climate Change: Fact, Fiction, and Faith" Moderator: Dorothy Boorse			Student Center Grand Ballroom (8)
9:45 AM 5:15 PM	Poster Viewing			Student Center Ballroom DE
9:45 AM	Exhibit and Book Room			Student Center Ballroom DE
9:45 AM	Beverage Break			Student Center Ballroom DE
10:15 AM 11:45 AM	I.A: Energy, Water, and Environment –Brown W280 Moderator: Terry Gray	I.B: Biological Sciences –Brown W250 Moderator: Sy Garte	I.C: Physical Sciences –Brown W210 Moderator: Deborah Shepherd	I.D: Student/Early Career Track 1 –SC Grand Ballroom Moderator: Thomas Grosh IV
10:15 AM	Terry M. Gray (11) "Back to the Future on the Back of an Envelope"	Valerie C. Sikkema (11) "Stewardship and Integrated Pest Management in a Commercial Nursery in Canada"	David Campbell (11) "History of Geology: Past Faith and Science Informing the Present"	S. Joshua Swamidass (11) "Science, Mission, and Flourishing"
10:45 AM	John A. Turner (12) "The Hydrogen Economy: Food and Energy"	Robin Pals Rylaarsdam (12) "Practical Evolution: Harnessing Variation and Selection in Rational Drug Discovery"	Peter B. James (12) "Planetary Science and 'Aiming for Heaven'"	Panel (12) "Communicating with Secular Peers about Faith and Science"
11:15 AM	Richard Passamaneck (13) "Propellant Fracturing of Vertical and Horizontal Wells"	Nahanni Freeman and Mark A. Parker (13) "Serotonin Transporter Gene Polymorphism, Response Inhibition, Auditory Attention, and Emotional Variations"	Dillard Faries (13) "The Personal Struggle of Wolfgang Pauli with Modern Physics and Modern Psychology as Impetus and/or Model for Integration of Science and Faith"	Various Mentors (13) Speed Mentoring, Session 1
11:45 AM	Lunch			Mines Market
11:45 AM	CSCA (Canadian Scientific and Christian Affiliation) Lunch Meetup			Mines Market Private Dining Room
1:15 PM 2:45 PM	II.A: Water Symposium Invited Papers –Brown W280 Moderator: Dorothy Boorse	II.B: Biological Sciences –Brown W250 Moderator: Patricia Fitzgerald-Bocarsly	II.C: Theology –Brown W210 Moderator: E. Janet Warren	II.D: Student/Early Career Track 2 –SC Grand Ballroom Moderator: Thomas Grosh IV
1:15 PM	Dorothy Boorse (14) "Water and the Sustainable Development Goals: Availability, Pollution, and Ecosystem Health as We Look toward 2030"	Roger Wiens (14) "Why Should We Expect to Find Life on Mars?"	Dick Fischer (14) "The Genesis 5 Patriarchs and the Sumerian King List: Is There a Commonality?"	Panel (14) "Flourishing in a Science Career"
1:45 PM	Thomas Ackerman (15) "Climate Change, Climate Engineering, and the Global Hydrologic Cycle"	Sy Garte (15) "The Teleological Biochemistry of Evolution"	Justin Crick (15) "The Genesis Flood: Discussing a Global Deluge from a Water Engineering Perspective"	Panel (15) "Communicating about Science with Christian Communities"
2:15 PM	Steven Hall (16) "Ethical and Stewardship Considerations in Aquaculture"	S. Joshua Swamidass (16) "The Recent Common Ancestry of All Humanity about 6,000 Years Ago"	Alan Dickin (16) "Why the Identity of Noah Is Important for the Origins Debate"	Various Mentors (16) Speed Mentoring, Session 2

2:45 PM 3:45 PM	Poster Session				Student Center Ballroom DE
	<ol style="list-style-type: none"> 1. Kenell J. Touryan, "Perovskite Solar Cells: Fastest Advancing Solar Technology to Date" (30) 2. Raul Botello, "Water Quality Impacts of Arizona's Salt River Project Canal on Papago Park" (30) 3. Amanda Burns, "<i>E. coli</i> as an Indicator of Water Quality at Papago Park" (30) 4. Carola Davila, "Stewardship of Papago Park, Phoenix, AZ: Examining the Effects of Recreational Activities on Vegetation" (30) 5. Joanna R. Klein, "A Teaching Strategy to Relate Christian Faith and Scientific Explanations of Origins: Its Impact and Effectiveness" (31) 6. Dina Higgins, "Addressing the Undiscussed" (31) 7. Samantha Russell, "Integrating a Christian Worldview into an Introduction to Engineering Course" (31) 8. Michael Sheller, "Combining Engineering Fundamentals and Personality Indicators in a First-Year Retention Program" (31) 9. Robbin Eppinga and Lydia Marcus, "Developing Tools to Promote and Measure Science-Faith Integration in Emerging Young Adult Christians" (32) 10. Richard E. Denton, "Eradicating Bible Poverty around the Globe" (32) 11. Ashley Rea, "Evolution of Nutrient Resorption in Sunflower" (32) 12. Julie Woodman, "A Case for Cornelia de Lange Syndrome: Regulating Protein Phosphorylation to Understand Disease" (32) 13. Daisy Savarirajan, "Ortho Cleavage of Protocatechuate in Lignin Degradation by <i>Bacillus subtilis</i>" (33) 14. Ramesh Velupillaimani, "Biochemical and Spectroscopic Characterization of PSI-LHCI-LHCII Supercomplex from <i>Chlamydomonas reinhardtii</i> Cells Adapted to State 2 Conditions" (33) 15. Christopher Buschhaus, "Interpreting Goose Poo for Improved Orchard Establishment" (33) 16. Arthur K. Sikora, "Expanding Magnetic Resonance Techniques into Live Whole Cells for Membrane Protein Studies" (33) 17. Charles Kankelborg, "Chance, Divine Foreknowledge, and the Sovereignty of God" (34) 18. Kathryn Belicki, "Why Forgive? Differential Outcome Following Interpersonal Injury as a Function of Reasons for Forgiving" (34) 19. Kathryn Belicki, "Attachment to God versus People: Relations to Outcome Following Traumatic Events" (34) 20. Anjali Fahnstock, "Why Science and Faith in a Designed Universe Are Not Mutually Exclusive Using Plantinga's Arguments" (34) 21. O. Favour Ayodele, "Choices and Management" (35) 22. Amy K. Blom, "Effects of Climate Change on Crop Choices in Colombia" (35) 23. Jim Buchholz, "How Different Philosophies of Science Affect Your Faith and Worldview" (35) 				
2:45 PM	Refreshment Break				Student Center Ballroom DE
3:45 PM 5:15 PM	III.A: Energy, Water, and Environment –Brown W280 Moderator: Terry Gray	III.B: Biological Sciences –Brown W250 Moderator: Patricia Fitzgerald-Bocarsly	III.C: Education –Brown W210 Moderator: Mark Parker	III.D: Theology and Other –SC Grand Ballroom Moderator: Lynn Billman	
3:45 PM	Kevin Orner (17) "Environmental Stewardship through Recovering Resources from Wastewater"	Perry Marshall (17) "Extended Evolutionary Synthesis as Replacement of Neo-Darwinism"	Joel D. Light (17) "Relationships among Evangelical College Students' Worldviews and Their Knowledge, Beliefs, and Acceptance of Anthropogenic Climate Change"	Jimmy Davis (17) "Natural and Revealed Theology's Impact on One's View of God and Nature"	
4:15 PM	Michael Whelan (18) "Industry vs. the Planet: A Christian Perspective on Reconciling Environmental Stewardship with Industrial Advancement"	Emily R. Herrington (18) "A Place for Striving and 'Agency' in Evolutionary Theory?"	Louise Ko Huang (18) "The Relevance of Undergraduate Education and Climate Change Issues"	Hans Weichselbaum (18) "Does Science Lead One to Atheism?"	
4:45 PM	Ruth Douglas Miller (19) "Why Haven't You Installed a Solar Array Yet?"	Denis Lamoureux (19) "An Overview of <i>Evolution: Scripture and Nature Say Yes!</i> "	Wade A. Neiwert (19) "Engaging Students in Science and Faith through Study Abroad"	Jamin Hübner (19) "Revisiting Pollution and Property Rights: A Christian Libertarian Perspective"	
4:45 PM	ASA Registration Table closes				Student Center Ballroom DE
5:15 PM	Exhibit and Book Room closes				Student Center Ballroom DE
5:15 PM	Parallel Session III ends				

6:30 PM	Banquet, <i>business casual attire</i> <ul style="list-style-type: none"> • Leslie Wickman and Vicki Best —Welcome, Prayer, Introductions • Faith Tucker —Personal Testimony Ken and Cheryl Touryan proudly sponsor complimentary copies of Philip’s book.	Green Center, Friedhoff Hall
8:00 PM 9:00 PM	Plenary III. Introduction: Ken Touryan Philip Yancey , “Now and Then”	Green Center, Friedhoff Hall (10)

Congratulations, Long-Time Member Attendees!

We appreciate your faithful commitment to the ASA.

55 years

Ronald L. Barndt
Leland H. Williams Sr.

50–54 years

Gordon E. Brown
David L. Newquist
Kenneth C. Olson

45–49 years

Richard F. Carlson
Dwight H. Klaassen
Martin L. Price
Robert E. Sundell
Kenell J. Touryan
Davis A. Young

40–44 years

Paul T. Arveson
Donald H. Bilderback
Walter L. Bradley
Dillard W. Faries
Randall D. Isaac
David H. Ives
D. Gareth Jones
Ronald T. Myers
Willard H. Roundy Jr.
Bruce W. Schweitzer
Jack C. Swearengen
John R. Wood
Kurt A. Wood
James E. Yoder

SUNDAY, 30 JULY 2017		
6:00 AM	Morning walk sponsored by the ASA Christian Women in Science affiliate; all are welcome	Meet in Maple Hall Lobby
7:00 AM	Breakfast	Mines Market
7:30 AM	Engineers Breakfast Meetup—All engineers are invited	Mines Market Private Dining Room
9:30 AM 10:30 AM	Worship Service Faith Worship: Sara Sherman , worship leader; Rachel Shield , vocals; Hank Lea , guitar; and Jon Price , drums Minister: Rev. Peter Hielt , Pastor of The Sanctuary Denver Offering supports Issachar Center for Urban Christian Leadership	Student Center Grand Ballroom
10:30 AM	ASA Registration Table	Student Center Ballroom DE
10:30 AM 5:15 PM	Poster Viewing	Student Center Ballroom DE
10:30 AM	Exhibit and Book Room	Student Center Ballroom DE
10:30 AM	Beverage Break	Student Center Ballroom DE
11:00 AM 12:00 PM	Plenary IV. Ian Hutchinson , “The Technical and Spiritual Challenges of Sustainable Energy” Moderator: Randy Isaac	Student Center Grand Ballroom (9)
12:00 PM	Lunch	Mines Market
12:00 PM	Christian Women in Science (ASA Affiliate) Lunch Meetup—All women are invited	Mines Market Private Dining Room

1:15 PM 2:45 PM	IV.A: Engineering —Brown W280 Moderator: William Jordan	IV.B: Medical Sciences —Brown W250 Moderator: S. Joshua Swamidass	IV.C: Education —Brown W210 Moderator: Mark Parker	IV.D: Theology —SC Grand Ballroom Moderator: Lynn Billman
1:15 PM	Jonathan Touryan (20) “Current and Future Approaches to Brain-Computer Interface Technology”	D. Gareth Jones (20) “Science, Ethics, and God’s Will: Approaches to Medical Technology”	Stephen Dilley (20) “Ideas for Fortifying Biological Education”	John R. Wood (20) “The Necessity of Death”
1:45 PM	Ryan K. Oosteros (21) “Summary of US Air Force Academy Unmanned Aviation Research”	John Pohl (21) “The Human Microbiome: Medical, Philosophical, and Theological Complexity”	Michael A. Everest (21) “Does the Second Law of Thermodynamics Contradict the Theory of Evolution?”	Stephen Huffey (21) “The Ultimate Purpose of Stewardship: ‘The Earth Is the Lord’s and Everything in It ...’ Psalm 24:1”
2:15 PM	Paul H. Carr (22) “Balancing Economics with Ethics to Save God’s Creation”	E. Janet Warren (22) “Alternative Medicine and the Failure of Protestant Christianity”	Michael Tenneson (22) “Veracity Claims Assessment by Christian College Students”	Peter Hiatt (22) “The Implications of Relativity upon Our Understanding of Genesis One and the Christian Doctrine of <i>Apokatastasis</i> ”
2:45 PM	Refreshment Break			Student Center Ballroom DE
3:15 PM 5:15 PM	V.A: Ethics, Environment, and Economics —Brown W280 Moderator: Peter Sawtell	V.B: Physical Sciences —Brown W250 Moderator: Deborah Shepherd	V.C: Science Literacy —Brown W210 Moderator: Se Kim	V.D: Theology —SC Grand Ballroom Moderator: Lynn Billman
3:15 PM	Dominic Halsmer and Philip Riegert (23) “Creation as Invitation: How Nature Complements Scripture in Calling Us Back to Our Maker”	David C. Winyard Sr. (23) “Transhumanism-Christianity Diplomacy: To Transform Science-Religion Relations”	Jack C. Swearingen (23) “Science Literacy for the Church”	Hugh Ross (23) “Habitability for Redemption”
3:45 PM	Raymond J. Lewis (24) “The Promise of Theocentric Environmental Ethics”	George L. Murphy (24) “Cosmological Presuppositions”	Kathryn Applegate (24) “Bringing Light, Not Heat: New and Forthcoming BioLogos Resources”	Walter L. Bradley (24) “Fine Tuning of the Universe: Evidence for the Existence of God”
4:15 PM	Paul Heintzman (25) “The Ecological Virtues of Bill Mason”	David S. Oakley (25) “The End of an Era? The Data Deluge and the Scientific Method: A Case Study in Medicine”	Dana Oleskiewicz (25) “Linking Citizens to Science in the Interest of Faith”	Mitchell Mallary (25) “Dispensationalism and the Alternative Ethics of Revelation”
4:45 PM	Johnny Wei-Bing Lin (26) “Determining the Content of Excellent Creation Care and the Need for a Center for Environmental Stewardship and Dialogue”	Arnold E. Sikkema (26) “Quantum Field Theory, Personhood, and the Trinity: Echoes and Resonances”	HanSung Hong and Se Kim (26) “Perspectives of Science Among Asian Americans and Applicable Implications to Reaching the Broader Younger Generations for Christ”	David A. Larrabee (26) “Eschatological Visions and Climate Change Decisions”
5:15 PM 10:00 PM	Posters taken down			Student Center Ballroom DE
5:15 PM	Exhibit and Book Room closes			Student Center Ballroom DE
5:15 PM	Dinner			Mines Market
5:15 PM	Geologists Dinner Meetup—All geologists are invited			Mines Market Private Dining Room
6:00 PM	Volleyball Tournament			Volleyball Lawn Courts
6:30 PM	CWIS State of Women in ASA (open to all)			Student Center Grand Ballroom
8:00 PM	Ice Cream Social			Student Center Ballroom DE
8:30 PM	State of the ASA Presenters: Leslie Wickman, Stephen Moshier, Vicki Best			Student Center Grand Ballroom
9:30 PM	InterVarsity Reception / Meet the Plenaries			Student Center Ballroom DE

MONDAY, 31 JULY 2017				
6:00 AM	Morning walk sponsored by the ASA Christian Women in Science affiliate; all are welcome			Meet in Maple Hall Lobby
7:00 AM	Breakfast			Mines Market
8:15 AM	ASA Registration Table			Student Center Ballroom DE
8:20 AM	Devotions. Devotional: Johnny Lin Faith Worship: Sara Sherman , worship leader; Hank Lea , guitar; and Jon Price , drums			Student Center Grand Ballroom
8:45 AM 9:45 AM	Plenary V. James C. Peterson , "CRISPR Cas9 and Changing Human Nature: The National Academy of Sciences Report and a Christian Response" Moderator: Keith Miller			Student Center Grand Ballroom (9)
9:45 AM	Exhibit and Book Room			Student Center Ballroom DE
9:45 AM	Beverage Break			Student Center Ballroom DE
10:15 AM 11:45 AM	VI.A: Engineering and Appropriate Technology –Brown W280 Moderator: William Jordan	VI.B: Physical Sciences and Appropriate Technology –Brown W250 Moderator: Deborah Shepherd	VI.C: Science Literacy –Brown W210 Moderator: Se Kim	VI.D: Theology –SC Grand Ballroom Moderator: Lynn Billman
10:15 AM	Leonard J. Bond (27) "Quality, Reliability, Safety, and Economics: The Role of Nondestructive Evaluation for Energy Systems in Creation Care and Sustainability"	Martin Price (27) "A Quick Overview of Practical, Low-Cost Options for Helping Rural Poor in Developing Countries"	Kate Hogan (27) "The Nature Mentor Momentum"	Robert C. Bishop (27) "Scientific Explanations Are Purposefully Limited to Natural Causes"
10:45 AM	William Jordan (28) "A Christian Approach to Sustainable Engineering"	Ken Wolgemuth (28) "800 Carbon-14 Measurements in Lake Suigetsu, Japan: An Opportunity to Directly Test the Young Earth Model"	Jeffrey K. Greenberg (28) "Projects to Promote the Effective Bonding of Science and Christian Faith"	Jason N. Hine and Richard F. Carlson (28) "Paradox in Christian Faith: Simplicity and Complexity, With Insights from Theology and Modern Physics"
11:15 AM	Paul Arveson (29) "Extinguishing the Three-Stone Fire"	John C. Munday (29) "Salt Range, Pakistan— Still Unsolved?"	Walter Rogero (29) "Conducting Meaningful Conversations in Faith and Science"	David Siegrist (29) "Human Life: Accident or Inevitable?"
11:45 AM	Parallel Session VI ends			
11:45 AM	Exhibit and Book Room closes			Student Center Ballroom DE
11:45 AM	ASA Registration Table closes			Student Center Ballroom DE
11:45 AM	Lunch			Mines Market
1:00 PM	Lodging Check Out (luggage storage available) *			

* To avoid paying for another night's lodging, you must be checked out by 1:00 PM

POST-MEETING ACTIVITIES

MONDAY, 31 JULY 2017		
1:00 PM	Climate Change Tour Package	Bus loads at Parking Lot E

TUESDAY, 1 AUGUST 2017		
8:00 AM	South Platte River Wetlands Walk	Maple Hall Entrance
8:00 AM	Mt. Galbraith Hike	Maple Hall Entrance
10:00 AM	Lodging Check Out	Maple Hall Lobby