

Meeting Minutes 10/9/2020

- General Club Announcements
 - Get on the Astro Club Email List!
 - It's a great way to stay connected!
 - Meeting reminders/zoom links
 - Campus/community events
 - Student opportunities
 - And more...
 - ATOMM. <https://arizona.zoom.us/j/96774306746>
 - Tutoring for physics, astronomy, and math by experienced graduate students (over Zoom!)
 - M (2-4 pm) Yujing Qin
 - T (noon - 2 pm) Ryan Keenan
 - W (1-2 pm) Ryan
 - Th (2-3 pm) Yujing
 - Get added to the active member's list
 - Fill out the form during meetings!
 - You only have to fill it out once
 - Game Night! Tonight!
 - We play Jackbox, Among Us, and Minecraft
 - If you are reading this, you are too late.
 - We will have more Game Nights later this semester, so don't worry about having missed it.
 - Astronomy Club + SO DEI Social
 - When: Next Friday at 5 pm (following our meeting)
 - Members of the Steward Observatory Diversity, Equity, and Inclusion Task Force (SO DEI) will introduce themselves and discuss their work on the task force. This will be a great chance for everyone to meet each other!
- TIMESTEP
 - Next meeting: Overview of Graduate Application Process
 - Led by Eduardo Rozo
 - When/Where: Wednesday, October 21st over Zoom at 5 pm
 - You must register your UA email in advance to receive the Zoom link
- Proposing New Club Constitution Amendments
 - Why?
 - To meet new ASUA club constitution requirements and clarify inconsistent sections from our old constitution
 - We will present our 9 new proposals at today's meeting and vote on them during our next meeting
 - Proposal #1
 - Purpose: To clarify what non-students may participate in. Non-students, a subset of inactive members, are currently allowed to participate in

- extracurricular events. This is inconsistent with the definition of inactive members.
 - Background information (from Constitution): “Unless otherwise declared by the officers, inactive members may not engage in activities occurring outside of regularly scheduled meetings, including outreach activities.”
 - New proposal: Non-students may participate in all meeting activities as long as they abide by university policy.
- Proposal #2
 - Purpose: To update officer voting procedures. Currently, the constitution requires a majority victory, which may not always be possible if more than two candidates are running for the same position. With this, we would like to clarify what should be done in case of a tie.
 - New proposal: Officers will be elected by written or virtual ballot. A plurality of votes will constitute a victory. If a vote results in a tie, a second vote will take place in a timely manner.
- Proposal #3
 - Purpose: To clarify who is eligible to vote in officer elections and amendment proposals.
 - New proposal: “Undergraduate and graduate students present at the meeting (whether active or inactive) are eligible to vote.”
- Proposal #4
 - Purpose: To clarify when voting in officer elections must occur.
 - Background Information: This requirement already exists for voting on amendment proposals.
 - New proposal: “Voting for new club officers must take place during the regularly scheduled meeting time (either physically or digitally).”
- Proposal #5
 - Purpose: To meet new ASUA requirements and detail the conditions needed for a vote to take place.
 - New proposal: “Quorum: At least 50% of the total active member roster must be present at a meeting to call for a vote. If this requirement is not met, but at least 30% of the active member roster is present, a majority vote shall be conducted amongst the officers to allow a discretionary vote to take place.”
- Proposal #6
 - Purpose: To update our non-discrimination policy based on new ASUA requirements.
 - New proposal: “This organization shall not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information in any of its policies, procedures, and practices. This policy will include, but is not limited to recruiting, membership, organization activities, or opportunity to hold office. Pursuant to Arizona Revised Statute 15-1863, religious or political student organizations may determine that ordering the

organization's internal affairs, selecting the organization's leaders and members, defining the organization's doctrines and resolving the organization's disputes are in furtherance of the organization's religious or political mission and that only persons committed to that mission should conduct such activities. Pursuant to Section 106.14 of the regulations promulgated under Title IX of the US Education Act Amendment of 1972, Social Greek Letter Organizations may limit membership based on gender."

- Proposal #7
 - Purpose: To meet new ASUA requirements.
 - New proposal: "This organization is subject to the Arizona Board of Regents Code of Conduct."
- Proposal #8
 - Purpose: To clarify meeting reminders and detail the time and occurrence of our official club meetings. Noting the occurrence of our club meetings is also required by new ASUA requirements.
 - New proposal: "Meetings will be open to all organization active and associate members, faculty, and the Center for Student Involvement & Leadership representatives. A notice of at least 2 weeks will be given prior to all meetings that do not follow the regularly scheduled, weekly meeting time (4 pm AZ time, Friday). The meetings are to be organized and controlled by officers and active members."
- Proposal #9
 - Purpose: To eliminate an old requirement for office key holders that has not been utilized for years.
 - Old Section: "All key holders shall hold at least two office hours in the club office(s) per week."
 - New proposal: Remove this requirement and continue our focus on promoting ATOMM. ATOMM is an under-utilized resource that offers this exact service but with more experienced graduate students.
- Vote next week!
- What Up Astronomy Club with Yancy
 - Jupiter and Saturn are still up high in the South
 - Which clouds on Jupiter are lower and higher elevation?
 - The darker clouds in IR are higher
 - Clouds that are dark in IR are colder than the brighter clouds
 - So the bright clouds are deeper into Jupiter
 - Observing Alpha Pavonis (Peacock) next 3 weeks
 - Look to the South, need a very clear view
 - A star from the Southern hemisphere reaching 1 degree above the horizon
 - It's the head of a peacock constellation
 - Just got its official name recently
 - Mars is up!

- Reaching opposition, rising in the East as the Sun sets in the West
 - Go out and look, best opposition for a few years
 - You might be able to pick out a few features right now
 - ~20 arcseconds big! Nice!
 - Still near Mira, the variable star, which will be slowly getting dimmer and disappearing from view
 - Thin crescent moon near Venus
 - The planet is on its way back down towards the horizon
- Astronomy Question of the Week with Don
 - Can statistics lie?
 - Relation between fresh lemons and total US highway fatality rate
 - The data is correct, but doesn't actually show a relation between imported lemons and highway deaths
 - Spurious correlations website has some funny coincidences
<https://tylervigen.com/spurious-correlations>
 - Be careful what you do with statistics :)
 - Every so often, the moon moves in front of a bright star
 - The sudden blockage can help you learn more about the object
 - Can figure out the size, map the surface, etc
 - What determines the length of an occultation?
 - The angular size of the moon
 - The moon is moving
 - The sky is moving due to the Earth turning
 - The angle the star moves behind the moon can vary
 - The Earth is rotating
 - Moon travels ~12 degrees/day in its orbit
 - 360 deg/ 30 days
 - Or 12 deg / day = 0.5 deg/hour eastward
 - The time the moon takes to move its own diameter is ~1 hour
 - The observer is also moving, the Earth rotates the same direction the moon moves, moon appears to move westward
 - Net effect: 0.25 deg/hr eastward, occultation lasts ~2 hours
- Astro News of the Week with Sai
 - The Nobel Prize!
 - Physiology or Medicine
 - Harvey J. Alter
 - Michael Houghton
 - Charles M. Rice
 - For the discovery of the Hepatitis C virus.
 - Chemistry
 - Emmanuelle Charpentier
 - Jennifer A. Doudna
 - For the development of a method for genome editing
 - Literature

- Louise Glück “
 - For her unmistakable poetic voice that with austere beauty makes individual existence universal”
- Peace
 - World Food Programme
 - The world’s largest humanitarian organization addressing hunger and promoting food security.
- Economics
 - Coming soon...
- Physics (really Astronomy)
 - Roger Penrose
 - For the discovery that black hole formation is a robust prediction of the general theory of relativity
 - Reinhard Genzel
 - Andrea Ghez (used to work right next to Don McCarthy!)
 - For the discovery of a supermassive compact object at the centre of our galaxy
- Game Night!