



The PACA Project: Creating Synergy Between Observing Campaigns, Outreach and Citizen Science

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The PACA (Pro-Am Collaborative Astronomy) Project's primary goal is to develop and build synergy between professional and amateur astronomers from observations in the many aspects of support of missions and campaigns. To achieve this, the PACA has three main components: observational campaigns aligned with scientific research; outreach to engage all forms of audiences and citizen science projects that aim to produce specific scientific results, by engaging professional scientific and amateur communities and a variety of audiences. The primary observational projects are defined by specific scientific goals by professionals, resulting in global observing campaigns involving a variety of observers, and observing techniques. Some of PACA's observing campaigns have included global characterization of comets (e.g., C/ISON, SidingSpring, 67P/Churyumov-Gerasimenko, Lovejoy, etc.), planets (Jupiter, Saturn and Mars) and currently expanded to include (i) polarimetric exploration of solar system objects with small apertures and (ii) in collaboration with CITIZEN CATE, a citizen science observing campaign to observe the 2017 Continental America Total Eclipse, engage many levels of informal audiences using interactive social media to participate in the campaign. Our Outreach campaigns leverage the multiple social media/platforms for at least two important reasons: (i) the immediate dissemination of observations and interaction with the global network and (ii) free or inexpensive resources for most of the participants. The final stage of the PACA ecosystem is the integration of these components into publications. We shall highlight some of the interesting challenges and solutions of the PACA Project so far and provide a view of future projects and new partnerships in all three categories.