3rd AGORA Workshop in 2014

We are delighted to announce that the 3rd Workshop for the AGORA Project will be held **15–18 August 2014** at the University of California, Santa Cruz. The workshop is sponsored by the University of California High-Performance AstroComputing Center (UC-HiPACC).

– Looking for the workshop in 2012 or 2013?
– To learn about what was discussed during the 3rd Workshop, please go to this page in the Project Workspace!

Contents

Venue and Travel

(1) On Aug. 15 the Workshop will be in the **Simularium, Rm 180** of the Engineering 2 (E2) Building in the northwest corner of UC Santa Cruz campus, on Science Hill (click **here** to see a map of the E2 Building). This will be a joint session with the annual Santa Cruz Galaxy Workshop 2014. On Aug. 16–17 the Workshop will move to **Rm 102** of the Interdisciplinary Science Building (ISB; click **here** to see a map of the ISB).

(2) For a detailed direction to the meeting venue and the parking nearby, please go to the "General Info" tab in the **Santa Cruz Galaxy Workshop 2014** webpage. You may find it useful to visit the **link for visitors** by the Department of Astronomy and Astrophysics at UC Santa Cruz. If you opt to use local public transportation the Santa Cruz Metro **schedule** to and from the UC Santa Cruz campus might be helpful.
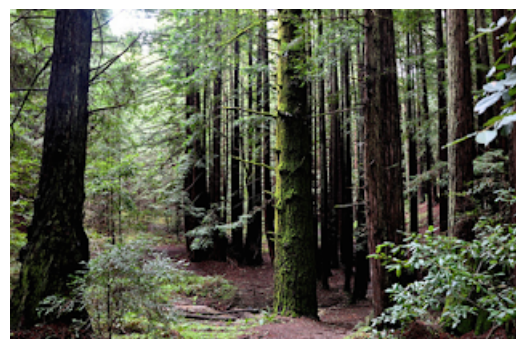
(3) No housing will be available on campus this summer. We recommend that if you plan to attend the conference, you arrange for lodging early. Although each hotels policies vary, ask if there is a special rate for UCSC. You may find information about local lodging options in the "General Info" tab in the **Santa Cruz Galaxy Workshop 2014** webpage.

Program

(1) This year we intend to make the workshop exclusively focused on working sessions for Papers "2", "3" and "4" to push these papers out by the end of this year (more information **here** about each Paper; membership required). All the simulation talks will be on Friday (Aug. 15) during the joint session with the Santa Cruz Galaxy Workshop 2014. But except an 1-hour collaboration-wide meeting, the entire Saturday and Sunday will be devoted to working sessions. Remote participation will be arranged.

(2) We may include working sessions for **science-oriented working groups** to coordinate imminent future hydrodynamic simulations. Feel free to suggest any topic to the Steering Committee or the Project coordinator.

08/15 (Fri) – Rm 180, Engineering 2 Bldg. (a.k.a. Simularium)

Time	Agenda
Sessions XX–XX.	
09:30–06:00PM	High-resolution galaxy simulation talks jointly with the Galaxy Workshop 2014 –– Including the first talk of the session "Status of the AGORA Project: Two Years After Conception" by Primack & Kim (**slides**) ––

	Visit the **Santa Cruz Galaxy Workshop 2014** webpage for the latest schedule, slides, and videos

08/16 (Sat) – Rm 102, ISB

Time	Paper Group "2" led by Oliver Hahn et al.	Paper Groups "3"+"4" led by Oscar Agertz, Britton Smith, et al.
09:00–09:30AM	Breakfast	
Session A1.		
09:30–09:35AM	Plenary Session: Greetings and Logistics by Primack (important **points** from his remark)	
09:35–10:30AM	Plenary Session: "To-do Items for Papers 3 and 4" by Oscar Agertz (**slides**)	
10:30–12:00PM	• **Discussion:** – Ellipsoidal ICs: readability in all codes – Start DM-only Proof-of-Concept run at high resolution (~100 pc) – Refinement strategy – Data storage strategy – How to resolve timing discrepancy • Participants and the link to the result of this session can be found **here**	• **Discussion:** – New Grackle API: if the wrapper is in place for most codes, perform a comparison using a one-zone cooling test. An example would be to plot temperature vs time for a single cell starting at $n=0.1$ cm^{-3} and $T=10^6$ K. – Disk initial conditions: compare isolated disk ICs (v_{rot}, \Sigma$_{gas}$, etc). – Refinement strategy: for mass-based refinement in grid codes, what is the appropriate mass to refine on ($M_{SPH\ kernel}$, $M_{gas\ particle}$?). Choices for gravitational softening vs smoothing kernel size in SPH? – Feedback: agree on a baseline implementation of feedback for the disk test – Other subgrid physics: e.g. SF law, SF density threshold, enrichment (Kim et al. 2014) and the use of a pressure floor. – Advanced/actual comparison: in either an isolated disk or a 10^{11} M$_{sun}$ cosmological halo. Agree on a suite of simulations for the isolated disk (e.g. cooling only, cooling+star formation, cooling+SF+feedback) • Participants and the link to the result of this session can be found **here**
12:00–01:50PM	Lunch	
01:50–02:00PM	Group Photo	
Session A2.		
02:00–03:30PM	Breakout Session 2 Continues	Breakout Session 3+4 Continues
03:30–04:00PM	Coffee Break	
04:00–05:00PM	Breakout Session 2 Continues **1-hour discussion for Working Group XIII** **– BH accretion & feedback** **led by Alex Hobbs** –– in parallel with the two other sessions • **Discussion:** – We will choose one accretion model for	Breakout Session 3+4 Continues

	cosmological runs, implement it across all codes and run simulation. – We will decide upon the mode of feedback (thermal/kinetic). We also need to ensure that the feedback implementation is consistent between SPH and AMR. – We will also decide upon a merger strategy and a seeding strategy. We may have to decide if we fix the BH to the center of the potential to prevent wandering. • The result of this breakout session can be found **here**	
05:00–05:30PM	Visualization Tour by Miguel Rocha	
05:30–06:00PM	Break / Carpool to Primack's House	
06:00–09:00PM	Dinner at Joel Primack's House	

08/17 (Sun) – Rm 102, ISB

Time	Paper Group "2" led by Oliver Hahn et al.	Paper Groups "3"+"4" led by Oscar Agertz, Britton Smith, et al.
09:00–09:30AM	Breakfast	
Session A3.		
09:30–10:00AM	Plenary Session: "yt+AGORA Pipeline on NERSC" by Miguel Rocha (**slides**)	
10:00–11:00AM	Plenary Session: Collaboration–wide Brainstorming Session (Discussion agenda located **here**)	
Session A4.		
11:00–12:30PM	Breakout Session 2 Continues	Breakout Session 3+4 Continues
12:30–12:35PM	Closing Remarks	
12:35–02:00PM	Lunch & Goodbye	

08/18 (Mon) – Rm 102, ISB

Time	Agenda
09:00–05:00PM	Feel free to stay and work if you like

List of Participants

Registered Participants

 – Oscar Agertz (University of Surrey)
 – Kenza Arraki (New Mexico State University)
 – Trudy Bell (UC Santa Cruz)
 – Michael Butler (University of Zurich)*
 – Daniel Ceverino (Universidad Autonoma de Madrid)
 – Colin DeGraf (HU Jerusalem)
 – Avishai Dekel (HU Jerusalem)
 – Robert Feldmann (UC Berkeley)
 – John Forbes (UC Santa Cruz)

– Cameron Hummels (University of Arizona)*
– Shigeki Inoue (HU Jerusalem)
– Ji–hoon Kim (Caltech)
– Anatoly Klypin (New Mexico State University)
– Mark Krumholz (UC Santa Cruz)
– Nir Mandelker (HU Jerusalem)
– Ken Nagamine (Osaka University & University of Nevada, Las Vegas)*
– Joel Primack (UC Santa Cruz)
– Yves Revaz (EPFL/Lausanne)*
– Miguel Rocha (UC Santa Cruz)
– Tanmayi Sai (UC Santa Cruz)
– Sijing Shen (University of Cambridge & UC Santa Cruz)
– Gregory Snyder (Space Telescope Science Institute)
– Vincent Steffens (UC Santa Cruz)*
– Adi Zolotov (HU Jerusalem)
– [TO BE ADDED]
– * indicates people attending only the AGORA portion of the week

Remote Participants

– Peter Behroozi (Space Telescope Science Institute)
– Junhwan Choi (University of Texas, Austin)
– Nick Gnedin (Fermilab)
– Oliver Hahn (ETH Zurich)
– Alexander Hobbs (ETH Zurich)
– Phil Hopkins (Caltech)
– Sam Leitner (University of Maryland)
– Piero Madau (UC Santa Cruz & University of Zurich)
– Lucio Mayer (University of Zurich)
– Jose Onorbe (MPIA)
– Tom Quinn (University of Washington, Seattle)
– Justin Read (University of Surrey)
– Christine Simpson (Heidelberger Institut fuer Theoretische Studien)
– Britton Smith (University of Edinburgh)
– Romain Teyssier (University of Zurich)
– Robert Thompson (University of the Western Cape)
– Keita Todoroki (University of Nevada, Las Vegas)
– Matteo Tomassetti (HU Jerusalem & Argelander Institut fuer Astronomie)
– James Wadsley (McMaster University)
– John Wise (Georgia Tech)
– [TO BE ADDED]

Organizing Committees

AGORA Science Steering Committee

– Tom Abel (Stanford University)
– Nick Gnedin (Fermilab)
– Piero Madau (UC Santa Cruz & University of Zurich)
– Lucio Mayer (University of Zurich)
– Joel Primack (UC Santa Cruz)
– Romain Teyssier (University of Zurich)
– James Wadsley (McMaster University)
– Ji–hoon Kim (Caltech / Project coordinator)

Local Organizing Committee

– Piero Madau (UC Santa Cruz & University of Zurich)
– Joel Primack (UC Santa Cruz)
– Miguel Rocha (UC Santa Cruz)
– Ji–hoon Kim (Caltech / Project coordinator)

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