

3. AGORA Workshops >

1st AGORA Workshop in 2012

We are happy to announce that the 1st workshop to launch the project will be held **17–19 August 2012** at the University of California, Santa Cruz. The workshop is sponsored by the University of California High-Performance AstroComputing Center.

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Venue and Travel

(1) On Aug. 17 the workshop will be held in the **Simularium, Rm 180** of the Engineering 2 (E2) Building in the northwest corner of UC Santa Cruz campus, on Science Hill. This will be a joint session with Santa Cruz Galaxy Workshop 2012. On Aug. 18–19 the workshop will move to **Rm 102** of the Interdisciplinary Science Building (ISB).

While the official session of the meeting ends on Aug. 19, we welcome anybody to stay to work till Aug. 20 in the Rm 102 (ISB).

(2) For a detailed direction to the venue, parking, and lodging information, please go to the "General Info" tab in the [Santa Cruz Galaxy Workshop 2012](#) webpage. You may find it useful to visit the [link for visitors](#) to 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) As one of local lodging options, the Mission Inn has agreed to honor the special rate of \$90.00/single and \$100.00/double for the workshop participants. Per prior conversations the Mission Inn has the availability during the workshop dates (Aug. 12–20; for this workshop and the Santa Cruz Galaxy Workshop 2012), but the rooms are first come first served basis. When travelers make reservations, they should be able to receive the special rate by confirming that they are attending one of the UCSC Galaxy Workshops. For more information and other lodging options, please go to the "General Info" tab in the [Santa Cruz Galaxy Workshop 2012](#) webpage.

Program

(1) The detailed scientific program of the meeting is as follows. Three key sessions this meeting will include are:

- science sessions by numerical groups focused on recent science results and challenges of high-resolution galaxy formation simulations (on Fri 17 as joint sessions with Santa Cruz Galaxy Workshop 2012),
- brainstorming sessions on the design of the comparison project and its science requirements,
- technical working sessions on zoom-in initial conditions

08/17 (Fri) – Rm 180, Engineering 2 Bldg. Video recordings of the Friday talks are available [here](#).

Time	Speaker	Agenda / Talk title*
9:20–10:40AM		-- Start with coffee break this morning --
10:40–11:10	Break	
Session IX–1.	Introduction to the Project	Chair: Madau
11:10–11:35 (20m)	Joel Primack (UCSC)	Introduction and Rationale of the Santa Cruz High-resolution Galaxy Simulation Comparison Project [pdf]
11:35–12:00 (20m)	Romain Teyssier (Zurich)	Galaxy Formation: Big and Small [pdf]
12:00–12:25 (20m)	Lucio Mayer (Zurich)	Black Hole Seeds in High-z Galaxy Mergers [pdf]
12:25–12:35 (10m)	Discussion	
12:35–2:00PM	Lunch	
Session IX–2.	The Eris Simulation	Chair: Abel

2:00–2:25 (20m)	Javiera Guedes (Zurich)	The Eris Simulation [pdf]
2:25–2:50 (20m)	Sijing Shen (UCSC)	The Circumgalactic Medium of Galaxies from High-resolution Zoom-in SPH Simulations [pdf]
2:50–3:15 (20m)	Annalisa Pillepich (UCSC)	The Effect of Baryons on the Subhalos of MW-like Galaxy [pdf]
3:15–3:30 (15m)	Discussion	
3:30–4:00	Break	
Session IX–3.	Realistic Physics in Simulations	Chair: Abel
4:00–4:25 (20m)	John Wise (Georgia Tech)	The Reionizers: High-z Dwarf Galaxies [pdf]
4:25–4:50 (20m)	Phil Hopkins (UCB)	Towards Realistic Feedback in High-redshift Galaxy Formation Simulations [pdf]
4:50–5:10 (16m)	Ji-hoon Kim (UCSC)	Galaxy Formation with Radiating Molecular Cloud Particles [pdf]
5:10–5:30 (16m)	Amit Kashi (UNLV)	A Cold Channel for Black Hole Accretion in Cosmological Simulations [pdf]
5:30–5:40 (10m)	Discussion	

08/18 (Sat) – Rm 102, ISB

Time	Speaker	Agenda / Talk title
9:00–9:30AM	Continental Breakfast	
Session X.	Definition of the Project	Chair & Discussion Moderator: Primack
9:30–9:50	Joel Primack (UCSC)	The Design of the Simulations: project definition, initial conditions, simulation parameters, minimal physics requirement
9:50–10:10 (16m)	Ji-hoon Kim (UCSC)	Proposed Cosmological Initial Condition
10:10–10:30 (16m)	Oliver Hahn (Stanford)	MUSIC: MUlti-Scale Initial Conditions Generator [pdf]
10:30–10:50 (16m)	Romain Teyssier (Zurich)	Proposed Isolated Initial Condition [pdf]
10:50–11:20	Break	
11:20–12:30PM	Tom Abel, Nick Gnedin, Anatoly Klypin, Piero Madau, Lucio Mayer, Tom Quinn, Romain Teyssier, James Wadsley, John Wise, etc.	Panel Discussion: project ideas by key persons of each participating group, future development plan for each group
12:30–1:50PM	Lunch	
Session XI.	Frontier of Numerical Simulation	Chair: Wise
1:50–2:15 (20m)	Tom Quinn (Washington)	Using Advanced Parallel Computing Language for Galaxy Formation Simulations
2:15–2:40 (20m)	Justin Read* (Zurich & Leicester)	Galaxy Formation in SPHS [pdf]
2:40–3:00 (16m)	Matthew Turk (Columbia)	yt: A Cross-Platform Toolkit for Astrophysical Analysis [pdf]
3:00–3:20 (16m)	Jose Onorbe (UC Irvine)	How to Zoom: Lagrange Volume and Other Halo Properties [pdf]
3:20–3:35 (12m)	Christine Simpson (Columbia)	The Effect of Feedback and Reionization on Star Formation in Low-mass Dwarf Galaxy Halos [pdf]
3:35–4:05	Break	
4:05–5:15	Working Session I	Ideal Goals: start generating ICs based on the consensus made, post ICs for all codes, each group tests whether its IC is readable, finally post first figures on the collaboration workspace
6:00–8:00PM	Dinner	Dinner at Joel Primack's house

* remote talk

08/19 (Sun) – Rm 102, ISB

Time	Speaker	Agenda / Talk title
9:00–9:30AM	Continental Breakfast	
9:30–10:40	Working Session II	Grouped by participating code

10:40-11:10	Break	
11:10-11:40	Joel Primack, Piero Madau, and James Wadsley	The Way Forward: talks that summarizes the consensus made in the workshop, future timeline, point person for each group
11:40-12:30PM	Working Session III	Grouped by participating code
12:30-2:00PM	Lunch	
2:00PM	~ Goodbye ~	

08/20 (Mon) - Rm 102, ISB

Time	Speaker	Agenda / Talk title
9:00-5:00PM		Feel free to stay and work if you like

List of Participants

Registered Participants

- Tom Abel (Stanford University)
- Oscar Agertz (KICP)
- Mike Boylan-Kolchin (UC Irvine)
- Daniel Ceverino (Universidad Autonoma de Madrid)
- Charlotte Christensen (University of Arizona)
- Avishai Dekel (HU Jerusalem)
- John Forbes (UC Santa Cruz)
- Shea Garrison-Kimmel (UC Irvine)
- Nick Gnedin (Fermilab)
- Javiera Guedes (ETH Zurich)
- Fulai Guo (UC Santa Cruz)
- Oliver Hahn (Stanford University)
- Phil Hopkins (UC Berkeley)
- Amit Kashi (UNLV)
- Ji-hoon Kim (UC Santa Cruz)
- Anatoly Klypin (New Mexico State University)
- Mike Kuhlen (UC Berkeley)
- Sam Leitner (University of Chicago)
- Piero Madau (UC Santa Cruz)
- Nir Mandelker (HU Jerusalem)
- Lucio Mayer (University of Zurich)
- Chris Moody (UC Santa Cruz)
- Jose Onorbe (UC Irvine)
- Annalisa Pillepich (UC Santa Cruz)
- Joel Primack (UC Santa Cruz)
- Tom Quinn (University of Washington)
- Miguel Rocha (UC Irvine)
- Sijing Shen (UC Santa Cruz)
- Christine Simpson (Columbia University)
- Romain Teyssier (University of Zurich)
- Robert Thompson (UNLV)
- Sebastian Trujillo-Gomez (New Mexico State University)
- Matthew Turk (Columbia University)
- Dylan Tweed (HU Jerusalem)
- James Wadsley (McMaster University)
- Coral Wheeler (UC Irvine)
- John Wise (Georgia Tech)
- Adi Zolotov (HU Jerusalem)

- [TO BE ADDED]

Remote Participants

- James Bullock (UC Irvine)
- Charlie Conroy (UC Santa Cruz)
- Michele Fumagalli (UC Santa Cruz)
- Nathan Goldbaum (UC Santa Cruz)
- Fabio Governato (University of Washington)
- Dusan Keres (UC San Diego)
- Andrey Kravtsov (University of Chicago)
- Mark Krumholz (UC Santa Cruz)
- Kentaro Nagamine (UNLV)
- Brian O'Shea (Michigan State University)
- Justin Read (ETH Zurich & University of Leicester)
- Brant Robertson (University of Arizona)
- Emilio Romano-Diaz (Argelander Institut fuer Astronomie)
- Matteo Tomassetti (Argelander Institut fuer Astronomie)
- [TO BE ADDED]

Organizing Committees

Scientific Organizing Committee

- Avishai Dekel (HU Jerusalem)
- Piero Madau (UC Santa Cruz)
- Lucio Mayer (University of Zurich)
- Joel Primack (UC Santa Cruz)
- Romain Teyssier (University of Zurich)

Local Organizing Committee

- Joel Primack (UC Santa Cruz)
- Piero Madau (UC Santa Cruz)
- Ji-hoon Kim (UC Santa Cruz)

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