

*Welcome to Oases 2023 and to ASU Cosmology and Beus Center! (Tuesday Feb 21, 2023; Tempe, AZ)*

Sanch Borthakur – extragalactic astronomy, CGM gas physics

Katrina Bossert – space and ionospheric physics

Judd Bowman – first neutral hydrogen & instrumentation

Sean Bryan – remote sensing; CubeSat & SPHEREx

Nat Butler – high z transients and Gamma Ray Bursters

Chris Groppi – experimental astronomy and star-formation

Danny Jacobs – low frequency astronomy & instrumentation

Rolf Jansen – extragalactic star-formation & JWST surveys

Karen Knierman – merging galaxies & tidal tails

Phil Maukopf – instrumentation for cosmology SPHEREx

Allison Noble – astrophysics of early stars, gas, & dust

Jenny Patience – cosmic star- and planet formation

Evan Scannapieco – astrophysical feedback & element formation

Molly Simon – astronomy and planetary science education

Sumner Starrfield – astrophysics of stellar explosions

Frank Timmes – stellar and chemical evolution; First stars

Alex Van Engelen – cosmological structure formation

Rogier Windhorst – Hubble & JWST studies of first objects

Patrick Young – stellar and chemical evolution theory

Matthew Baumgart – particle physics, quantum field theory

Andrei Belitsky – strongly coupled gauge theory

Paul Davies – gravitational and quantum theory

Damien Easson – gravitational theory, inflation

Simon Foreman – 21 cm, large-scale structure

Cynthia Keeler – quantum gravity

Richard Lebed – QCD and nuclear physics

Cecilia Lunardini – neutrinos

Maulik Parikh – gravitational theory, quantum gravity

William Terrano – dark matter experiments

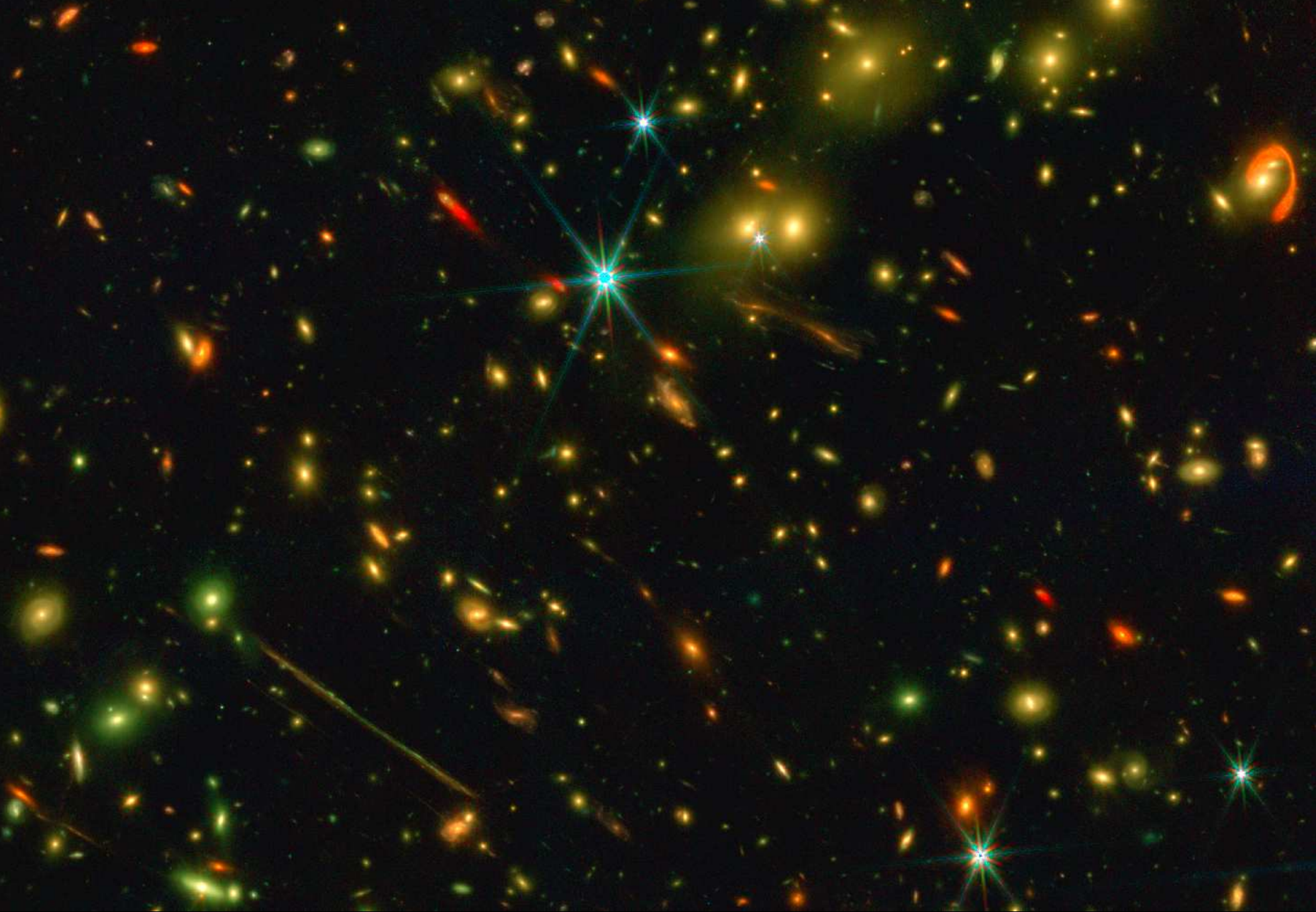
Tanmay Vachaspati – IG magnetic fields, cosmic strings



Have fun at Oases in the Desert — expect the unexpected in the CGM:

- Expect faint stars in the CGM — JWST sees tidal tails everywhere!
- Expect dust in the CGM: JWST sees plenty distorted dusty systems and outflows, also at high redshifts.



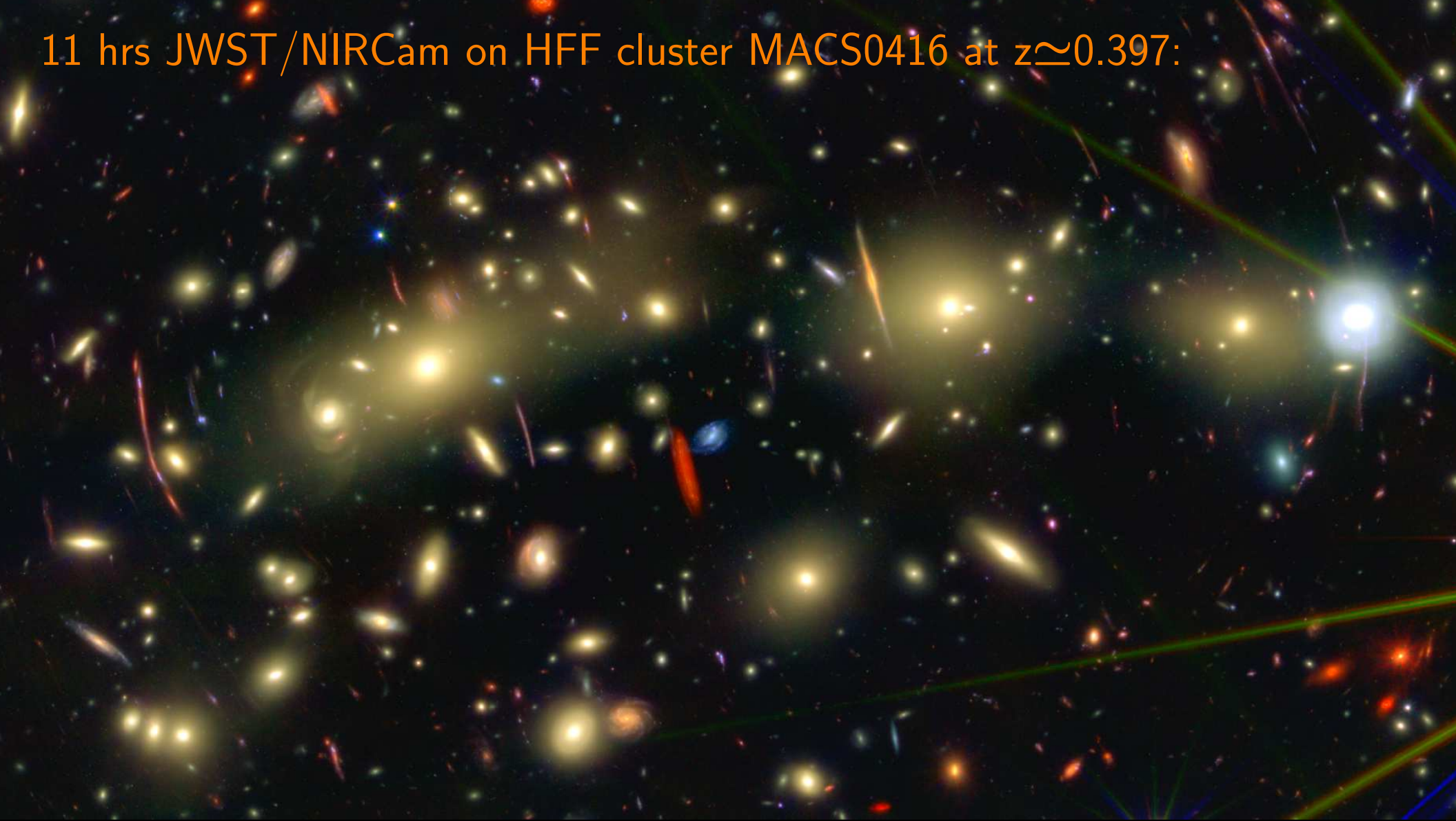


8-filter JWST/NIRCam of massive El Gordo cluster at redshift  $z \simeq 0.87$

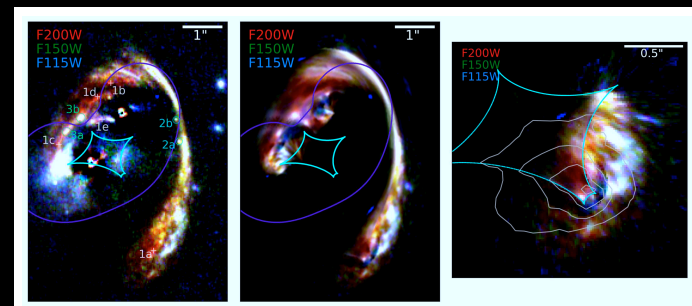
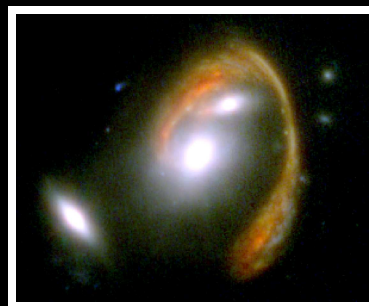
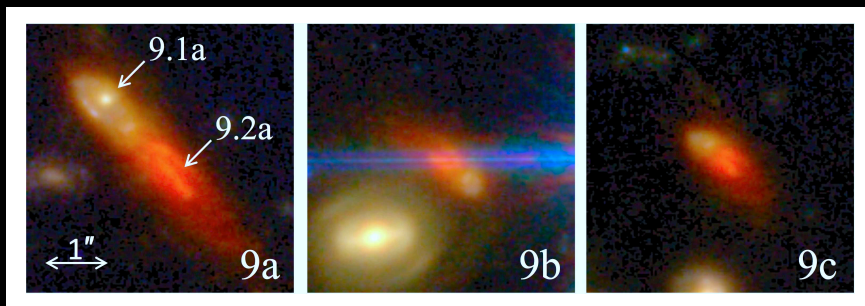
Diego et al. (A&A in press; astro-ph/2210.06514), Frye et al. (2023), Kamieneski et al. (2023), Carleton et al. (2023, in prep.)



11 hrs JWST/NIRCam on HFF cluster MACS0416 at  $z \simeq 0.397$ :



JWST/NIRCam: dusty (ALMA) sources behind El Gordo at  $z \simeq 2.3-4.3$ :



Please visit us at the galleries of ISTB4 and GWC-5th floor buildings.

or on: <http://https://sese.asu.edu/> or <https://cosmology.asu.edu/>

Talk: [http://www.asu.edu/clas/hst/www/jwst/oases23\\_cosmo\\_jwst.pdf](http://www.asu.edu/clas/hst/www/jwst/oases23_cosmo_jwst.pdf)

Data: <https://sites.google.com/view/jwstpearls> and <http://skysurf.asu.edu/>

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<https://esawebb.org/images/pearls1/zoomable/>