Thursday, May 25	
9:00 am	Lecture #4 by **Laura Kreidberg** *What kind of clouds and hazes do exoplanets have?*
10:00 am	Lecture #4 by **James Owen** *Impact of escape on exoplanet evolution*
11:00 am	**Coffee break**
11:30 am	Lecture #3 by **Aldo Bonomo** *Determination of stellar parameters for accurate (and precise) planet masses and radii*
12:30 - 2:30 pm	**Lunch and free time**
2:30 pm	Contribution #5 by **Simone Hagey** *Disentangling the Sources of Secular Trends in Exoplanet Orbits*
2:45 pm	Contribution #6 by **Lorenzo Mugnai** *ExoSim 2. The new time-domain simulator applied to the Ariel space mission*
3:00 pm	Lecture #5 by **Courtney Dressing** *The Compositions and Interior Structures of Exoplanets*
4:00 pm	**Coffee break**
4:30 pm	Lecture #5 by **Eric Ford** *Long-term evolution of multi-planet systems*
5:30 pm	Lecture #5 by **Laura Kreidberg** *What are the climates of exoplanets like?*
7:30 pm	**Dinner and free time**

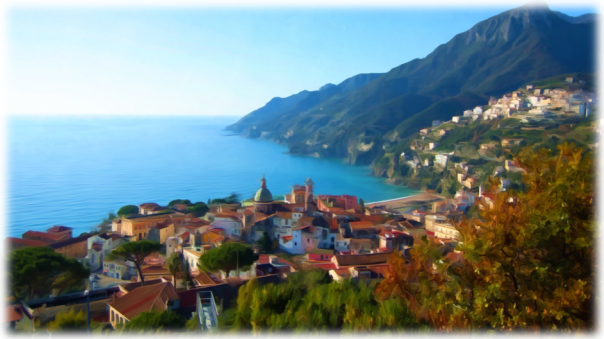
Friday, May 26	
9:00 am	Lecture #4 by **Aldo Bonomo** *Impact of stellar magnetic activity on planet parameters and modelling/mitigation techniques*
10:00 am	Lecture #6 by **Courtney Dressing** *Future Goals and Opportunities*
11:00 am	**Coffee break**
11:30 am	Lecture #6 by **Eric Ford** *Formation of multi-planet systems*
12:30 - 2:30 pm	**Lunch and free time**
2:30 pm	Contribution #7 by **Elyar Sedaghati** *Constraining planet formation theories from the Rossiter McLaughlin measurements for warm giant exoplanets*
2:45 pm	Contribution #8 by **Larissa Palethorpe** *Delving further into the radius valley through the characterisation of a sub-Neptune*

3:00 pm	Lecture #6 by **Laura Kreidberg** *Future prospects and the path to biosignatures*
4:00 pm	**Coffee break**
4:30 pm	Lecture #5 by **James Owen** *Open questions and future directions*
5:30 pm	Lecture #5 by **Aldo Bonomo** *Challenges and future prospects for accurate/precise determination of planet parameters*
7:30 pm	**Dinner and free time**

4th ADVANCED SCHOOL ON EXOPLANETARY SCIENCE

Astrophysics of Transiting Exoplanets

PROGRAM



May 22 - 26, 2023
Vietri sul Mare, Italy

Sunday, May 21	
10:00 am – 3:30 pm	**Visit of Herculaneum**
	Departure from Lloyd's Baia Hotel *Meeting time: 9:40 am* *Expected return at 3:30 pm*
7:00 pm – 8:00 pm	**Welcome cocktail and preregistration** *Lloyd's Baia Hotel*
Monday, May 22	
8:00 am – 9:00 am	**Registration**
9:00 am – 12:30 pm	**Lectures**
2:30 pm – 6:30 pm	**Lectures**
Tuesday, May 23	
9:00 am – 12:30 pm	**Lectures**
2:30 pm – 6:30 pm	**Lectures**
Wednesday, May 24	
9:00 am – 1:30 pm	**Lectures**
3:00 pm – 7:30 pm	**Visit of Ravello**
7:30 pm – 10:30 pm	**Social Dinner**
Thursday, May 25	
9:00 am – 12:30 pm	**Lectures**
2:30 pm – 6:30 pm	**Lectures**
Friday, May 26	
9:00 am – 12:30 pm	**Lectures**
2:30 pm – 6:30 pm	**Lectures**
Saturday, May 27	
9:00 am – 6:30 pm	**Hiking on the Path of the Gods** *Departure from Lloyd's Baia Hotel* *Meeting time: 8:50 am* *Expected return at 6:30 pm*

LECTURE PROGRAM

Monday, May 22	
9:00 am	Lecture #1 by **Courtney Dressing** *Introduction to Planetary Transits & Early Searches for Transiting Planets*
10:00 am	Lecture #1 by **Eric Ford** *Geometry of transiting multi-planet systems*
11:00 am	**Coffee break**
11:30 am	Lecture #1 by **Laura Kreidberg** *How do we "see" exoplanet atmospheres? I. Methods and techniques*
12:30 - 2:25 pm	**Lunch and free time**
2:30 pm	Contribution #1 by **Amy Tuson** *Discovery of Long-Period Transiting Exoplanets with TESS and Cheops*
2:45 pm	Contribution #2 by **Mario Basilicata** *Detection of Multiple Molecular Species in the atmosphere of the warm-Neptune HAT-P-11 b at High Spectral Resolution*
3:00 pm	Lecture #1 by **James Owen** *Overview of atmosphere loss mechanisms and theory of hydrodynamic escape from close-in exoplanets I*
4:00 pm	**Coffee break**
4:30 pm	Lecture #1 by **Aldo Bonomo** *The radial-velocity and transit methods*
5:30 pm	Lecture #2 by **Courtney Dressing** *Highlights from the Kepler Mission*
7:30 pm	**Dinner and free time**

Tuesday, May 23	
9:00 am	Lecture #2 by **Eric Ford** *Prototypical transiting multi-planet systems*
10:00 am	Lecture #2 by **Laura Kreidberg** *How do we "see exoplanet atmospheres? II. History and key facilities*
11:00 am	**Coffee break**
11:30 am	Lecture #2 by **James Owen** *Theory of hydrodynamic escape from close-in exoplanets II*
12:30 - 2:25 pm	**Lunch and free time**
2:30 pm	Contribution #3 by **Cyril Gapp** *The transmission spectrum of the Ultra-hot Jupiter WASP-121b with JWST/NIRSpec G395H reveals strong atmospheric signals and limb asymmetries*
2:45 pm	Contribution #4 by **Christina Schoettler** *Can the Kepler Dichotomy be explained by dynamical interactions in young star clusters?*
3:00 pm	Lecture #2 by **Aldo Bonomo** *Bayesian Inference through MCMC and Nested Sampling techniques*
4:00 pm	**Coffee break**
4:30 pm	Lecture #3 by **Courtney Dressing** *Highlights from the K2 and TESS Missions*
5:30 pm	Lecture #2 by **Eric Ford** *Transit Timing Variations*
7:30 pm	**Dinner and free time**

Wednesday, May 24	
9:00 am	Lecture #3 by **James Owen** *Direct observations of escape from exoplanets and what they tell us*
10:00 am	Lecture #4 by **Courtney Dressing** *Demographic Trends in Planet Occurrence Rates*
11:00 am	**Coffee break**
11:30 am	Lecture #4 by **Eric Ford** *Near-resonant multi-planet systems*
12:30 pm	Lecture #3 by **Laura Kreidberg** *What are exoplanet atmospheres made of?*
1:30 - 2:50 pm	**Lunch and free time**
3:00 - 7:25 pm	**Visit of Ravello**
7:30 - 10:30 pm	**Social dinner**