



**Foundations of Cosmology and Quantum Gravity  
PROGRAM**  
**NYU ABU DHABI SAADIYAT CAMPUS**  
**Institute Conference Center, Building A6, Room #010**  
**19 – 21 January 2020**

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**Sunday, January 19 | DAY 1**

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| <b>7:00 – 8:30 AM</b>   | <b>Breakfast</b><br>Flavors Restaurant, Sheraton Corniche Hotel<br><i>For Hotel Guests Only</i>   |
| <b>8:30 AM</b>          | <b>Bus Departure for NYUAD Campus</b><br>Outside Hotel Lobby  |
| <b>9:00 – 9:15 AM</b>   | <b>Registration and Refreshments</b><br>Meeting Room Foyer  |
| <b>9:15 – 9:30 AM</b>   | <b>Welcoming Remarks &amp; Introduction</b><br><b>Kevin Coffey</b> (NYU Abu Dhabi, Philosophy)  |
| <b>9:30 – 10:30 AM</b>  | <b>Chris Smeenk</b> (Western Ontario, Philosophy), “Explaining the Initial State”<br>Chair: <b>Kevin Coffey</b> (NYU Abu Dhabi, Philosophy)   |
| <b>10:30 – 11:30 AM</b> | <b>Robert Brandenberger</b> (McGill, Physics), “Trans-Planckian Censorship Conjecture and Implications for Early Universe Cosmology”<br>Chair: <b>Nick Huggett</b> (Illinois Chicago, Philosophy) |
| <b>11:30 – 12:00 PM</b> | <b>Break &amp; Refreshments</b><br>Meeting Room Foyer   |
| <b>12:00 – 1:00 PM</b>  | <b>Baptiste Le Bihan</b> (Geneva, Philosophy), “The Landscape Problem and the Multiverse: Epistemological Clarifications”<br>Chair: <b>Helen Meskhidze</b> (UC Irvine, Philosophy)                |
| <b>1:00 – 2:30 PM</b>   | <b>Lunch</b><br>Torch Club<br>1 <sup>st</sup> Floor, D2   |

<b>2:30 – 3:30 PM</b>	<b>Béatrice Bonga</b> (Radboud, Physics), “Angular Momentum Radiated by Electromagnetic vs Gravitational Waves” Chair: <b>Jim Weatherall</b> (UC Irvine, Philosophy)
<b>3:30 – 4:30 PM</b>	<b>Daniele Oriti</b> (LMU, Physics), “Cosmology as Quantum Gravity Hydrodynamics, and the Fate of Cosmological Singularities” Chair: <b>Adam Koberinski</b> (Western Ontario, Philosophy)
<b>4:30 – 5:00 PM</b>	<b>Break &amp; Refreshments</b> Meeting Room Foyer
<b>5:00 – 6:00 PM</b>	<b>Juliusz Doboszewski</b> (Bonn, Philosophy), “Epistemic Underdetermination of Global Spacetime Properties in Black Hole Spacetimes” Chair: <b>Niels Linneman</b> (Geneva, Philosophy)
<b>6:30 PM</b>	<b>Bus Departure for Dinner</b> Pick-Up from A6 Street-Side Entrance
<b>7:00 PM</b>	<b>Dinner</b> Al Mayass Restaurant, Sheraton Corniche Hotel

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## Monday, January 20 | DAY 2

<b>7:00 – 8:30 AM</b>	<b>Breakfast</b> Flavors Restaurant, Sheraton Corniche <i>For Hotel Guests Only</i>
<b>8:30 AM</b>	<b>Bus Departure for NYUAD Campus</b> Outside Hotel Lobby
<b>9:00 – 10:00 AM</b>	<b>Mairi Sakellariadou</b> (Kings College London, Physics), “Unweaving the Fabric of the Universe” Chair: <b>Josh Norton</b> (UC Irvine, Philosophy)
<b>10:00 – 11:00 AM</b>	<b>James Read</b> (Oxford, Philosophy), “Background Independence and Quantum Gravity” Chair: <b>Diana Taschetto</b> (Sao Paulo, Philosophy)
<b>11:00 – 11:30 AM</b>	<b>Break &amp; Refreshments</b> Meeting Room Foyer
<b>11:30 – 12:30 PM</b>	<b>Tushar Menon</b> (Oxford, Philosophy), “Why Is the Metric of General Relativity Lorentzian? The Role of Quantum Mechanics in General Relativity” Chair: <b>Ozer Turker</b> (Western Ontario, Philosophy)
<b>12:30 – 2:00 PM</b>	<b>Lunch</b> Torch Club

1<sup>st</sup> Floor, D2

- 2:00 – 3:00 PM**      **Alexei Starobinsky** (Landau Institute, Physics), “Present Phenomenological Status of Inflation and Physical Assumptions Behind It”  
Chair: **Chris Wüthrich** (Geneva, Philosophy)
- 3:00 – 4:00 PM**      **Richard Dawid** (Stockholm, Philosophy), “How *Postmodern* Is Cosmic Inflation?”  
Chair: **Kevin Kadowaki** (UC Irvine, Philosophy)
- 4:00 – 4:30 PM**      **Break & Refreshments**  
Atrium
- 4:30 – 5:30 PM**      **Elias Okon** (UNAM, Physics), “On the Status of Conservation Laws in Physics: Implications for Semiclassical Gravity”  
Chair: **Mahdi Khalili** (Sharif Technical, Philosophy)
- 5:30 – 6:30 PM**      **Daniel Sudarsky** (UNAM, Physics), “Addressing in a Concrete Manner the Gravitation/Quantum Interface, and Its Implications in Inflationary Cosmology, Black Hole Physics and Other Subjects of Interest to Contemporary Physics”  
Chair: **Dimitrios Athanasiou** (Western Ontario, Philosophy)
- 6:45 PM**              **Bus Departure for Dinner**  
Pick-Up from A6 Street-Side Entrance
- 7:15 PM**              **Dinner**  
Byblos Sur Mer, Intercontinental Hotel Abu Dhabi
- 9:00 PM**              **Bus Departure to Sheraton Corniche Hotel**  
Outside Hotel Lobby
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## Tuesday, January 21 | DAY 3

- 7:00 – 8:30 AM**      **Breakfast**  
Flavors Restaurant, Sheraton Corniche Hotel  
*For Hotel Guests Only*
- 8:30 AM**              **Bus Departure for NYUAD Campus**  
Outside Hotel Lobby
- 9:00 – 10:00 AM**      **Ivan Agullo** (Louisiana State, Physics), “Relics of a Cosmic Bounce in the Cosmic Microwave Background”  
Chair: **Kevin Coffey** (NYU Abu Dhabi, Philosophy)
- 10:00 – 11:00 AM**      **Siska Baerdemaeker** (Pittsburgh, Philosophy), “Experiments in Modern Cosmology”  
Chair: **Niranjana Warriar** (Illinois Chicago, Philosophy)
- 11:00 – 11:30 AM**      **Break & Refreshments**

Meeting Room Foyer

- 11:30 – 12:30 PM**      **Mike Schneider** (UC Irvine, Philosophy), “Stabs in the Dark Sector”  
Chair: **Jingyi Wu** (UC Irvine, Philosophy)
- 12:30 – 1:30 PM**      **Lunch**  
Torch Club  
1<sup>st</sup> Floor, D2
- 1:30 – 2:30 PM**      **Karen Crowther** (Oslo, Philosophy), “As Below, So Before: ‘Synchronic’ and ‘Diachronic’  
Conceptions of Spacetime Emergence”  
Chair: **Ding Jia** (Perimeter Institute, Physics)
- 2:30 – 3:30 PM**      **Yongge Ma** (Beijing Normal, Physics), “The Sense of Loop Quantum Branc-Dicke  
Cosmology”  
Chair: **Tannaz Najafi** (Geneva, Philosophy)
- 3:45 PM**                **Bus Departure for Abu Dhabi Tour**  
Pick-Up from A6 Street-Side Entrance
- 4:15 – 7:00 PM**      **Tour of the Sheikh Zayed Grand Mosque and Qasr Al Hosn**  
*Please note that the Grand Mosque has a strict dress code: long, loose-fitting clothing is mandatory for both men and women. Headscarves are mandatory for women and are available on-site.*
- 7:00 PM**                **Bus Departure for Sheraton Hotel.**