



# **SOLVAY WORKSHOP**

## **THE DARK SIDE OF BLACK HOLES**

VENUE: ULB, Campus de la Plaine, Brussels Building N.O. - 5th Floor - SOLVAY ROOM

### **Program (3 - 5 April, 2019)**

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#### **WEDNESDAY 3 APRIL 2019**

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| 09:40 - 10:00        | Registration  |
| 10:00 - 10:10        | Welcome address by Marc Henneaux<br>Director of the Solvay Institutes                                   |
| 10:10 - 10:50        | Speaker: Bernard Carr<br><i>Microscopic and macroscopic black holes: linking the light and the dark</i> |
| <b>10:50 - 11:20</b> | <b>COFFEE BREAK</b>   |
| 11:20 - 12:00        | Speaker: Sergei Dubovsky<br><i>Looking for axions with astrophysical black holes</i>                    |
| 12:00 - 12:40        | Speaker: Jo van den Brand<br><i>GW experiments (title TBC)</i>  |
| <b>12:40 - 14:00</b> | <b>LUNCH</b>  |
| 14:00 - 14:40        | Speaker: Licia Verde<br><i>Primordial black holes: the cosmology connection</i>                         |
| 14:40 - 15:20        | Speaker: Teruaki Suyama<br><i>PBH binary rate (title TBC)</i>   |
| <b>15:20 - 15:50</b> | <b>COFFEE BREAK</b>   |
| 15:50 - 16:30        | Speaker: Hai Bo Yu<br><i>Self-interacting Dark Matter</i>   |
| 16:30 - 17:10        | Speaker: Igor Tkachev<br><i>Axion stars: formation and collapse</i>                                     |
| <b>17:10 - 18:30</b> | <b>WELCOME DRINK</b>  |

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## THURSDAY 4 APRIL 2019

- 09:20 - 10:00      Speaker: Juan-García Bellido  
*Signatures of Primordial Black Holes as Dark Matter*
- 10:00 - 10:40      Speaker: Yacine Ali-Haïmoud  
*PBH as dark matter (title TBC)*
- 10:40 - 11:10      **COFFEE BREAK**
- 11:10 - 11:50      Speaker: Francesca Calore  
*Constraining Primordial Black Holes with High-energy Astrophysics*
- 11:50 - 12:30      Speaker: Alexander Kashlinsky  
*The Bright Side of Black Holes: dark matter, primordial black holes and the cosmic infrared background*
- 12:30 - 12:40      **GROUP PHOTO**
- 12:40 - 14:00      **LUNCH**
- 14:00 - 14:40      Speaker: Vitor Cardoso  
*The bright side of Black Holes*
- 14:40 - 15:20      Speaker: Paolo Pani  
*Black-hole superradiance: probing ultralight bosons with compact objects and gravitational waves*
- 15:20 - 15:50      **COFFEE BREAK**
- 15:50 - 16:30      Speaker: Martti Raidal  
*Constraints on PBH binaries from N-body simulations*
- 16:30 - 17:10      Speaker: Christian Byrnes  
*Constraining cosmology with primordial black holes*
- 20:00                Banquet at the Scheltema Restaurant,  
Rue des Dominicains, 7 - 1000 Brussels

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## FRIDAY 5 APRIL 2019

- 09:20 - 10:00      Speaker: Chris Kouvaris  
*Dark stars, Dark Matter and Black Holes*
- 10:00 - 10:40      Speaker: Joseph Bramante  
*Explosive Dark Matter Production of Heavy Elements in Compact Stars*
- 10:40 - 11:10      **COFFEE BREAK**
- 11:10 - 11:50      Speaker: Anne Green  
*Microlensing constraints on Primordial Black Hole dark matter*
- 11:50 - 12:30      Speaker: Joachim Kopp  
*Femtolensing Constraints on Primordial Black Holes*
- 12:30 - 14:00      LUNCH**
- 14:00 - 14:40      Speaker: Alexander Dolgov  
*New data about massive black holes and possible interpretation*