PACIFIC INSTITUTE OF THEORETICAL PHYSICS

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# GALIANO MEETING
# INTRINSIC DECOHERENCE in NATURE
## SCHEDULE

## WEDNESDAY, 22 MAY 2013

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|---|---|---|
| **18.00** | ***DINNER*** | |
| **20.30** | ***RECEPTION*** | |

## THURSDAY, 23 MAY 2013

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| **07.30** | ***BREAKFAST*** | |
| **08.30** | **L DIOSI** | Gravity-related spontaneous disentanglement: cause of Newton force? |
| **09.30** | **R PENROSE** | Why Gravitize Quantum Mechanics? The Galilean Unruh effect. |
| **10.30** | ***BREAK*** | |
| **11.00** | **P STAMP** | Gravitational Decoherence vs Environmental Decoherence |
| **12.00** | ***DISCUSSION SESSION*** | |
| **12.30** | ***LUNCH*** | |
| **14.00** | **D BOUWMEESTER** | Quantum decoherence in optomechanical systems. |
| **15.00** | **M ASPELMEYER** | Quantum experiments with massive mechanical resonators: status, challenges and perspectives |
| **16.00** | ***BREAK*** | |
| **16.30** | **T OOSTERKAMP** | From nanoscale magnetic resonance imaging to a proposed experiment to measure gravity's role in breaking the unitarity of quantum dynamics. |
| **17.30** | ***DISCUSSION SESSION*** | |
| **19.00** | ***DINNER*** | |

## FRIDAY, 24 MAY 2013

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| **07.30** | ***BREAKFAST*** | |
| **08.30** | **A KENT** | Beable Guided Quantum Theories and other Generalisations of Quantum Theory |
| **09.30** | **N SANGOUARD** | Displacing entanglement back and forth between the micro- and macro-domains. |
| **10.30** | ***BREAK*** | |
| **11.00** | **A ZEILINGER** | Photonic Entanglement in Large Spaces (real and Hilbert) |
| **12.00** | ***DISCUSSION SESSION*** | |
| **12.30** | ***LUNCH*** | |
| **14.00** | **J PULLIN** | Loss of coherence due to the use of real clocks and rods to measure space-time |
| **15.00** | **C GOODING** | Would Schrödinger's cat have collapsed its own wavefunction? A Search for Gravitational Decoherence |
| **16.00** | ***BREAK*** | |
| **16.30** | **B-L HU** | Foundational Issues in Gravitational Decoherence |
| **17.30** | ***DISCUSSION SESSION*** | |
| **19.00** | ***DINNER – WORKSHOP BANQUET*** | |

## SATURDAY, 25 MAY 2013

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| **07.30** | ***BREAKFAST*** | |
| **08.30** | **Y-Z MA** | Puzzles in Modern Cosmology |
| **09.30** | **M VISSER** | Low-energy oddities at the interface between quantum physics and gravity. |
| **10.30** | ***BREAK*** | |
| **11.00** | ***FINAL DISCUSSION SESSION*** | |
| **12.30** | ***LUNCH*** | |

**AFTERNOON IS FREE TIME (POSSIBLE DISCUSSION SESSIONS!)**

**19.00** ***DINNER***