



# Sixteenth Marcel Grossmann Meeting

## Tuesday, 6 July 2021

### Wormholes, Energy Conditions and Time Machines: Block 1 (09:30 - 12:30)

-Conveners: Francisco Lobo; Diego Rubiera-Garcia

time	[id] title	presenter
09:30	[633] Shadows and photon rings of asymmetric thin-shell wormholes	GUO, Minyong
09:45	[257] GRAVITATIONAL LENSING BY WORMHOLES IN BINARY SYSTEMS	PIETRONI, Silvia
10:00	[112] Double photon ring of asymmetric thin-shell wormhole in Palatini $f(R)$ gravity	GUERRERO, Merce
10:15	[519] Would we know a wormhole if we saw one?	WIELGUS, Maciek
10:30	[117] Traversable wormhole geometries in symmetric teleparallel gravity	SAHOO, Pradyumn
10:45	[692] From black-bounce to traversable wormhole, and beyond	SIMPSON, Alex
11:00	[163] Double-layer wormholes in quadratic hybrid metric-Palatini gravity	ROSA, João
11:15	[223] Gravitational Waves Generated by a Slowly Rotating Wormhole	KIM, Sung-Won
11:30	[926] Particle creation by wormholes: a toy model.	OLMO, Gonzalo J.
11:45	[95] Relic magnetic wormholes as a possible source of toroidal magnetic fields in galaxies	Prof. KIRILLOV, Alexander
12:00	[969] Circularly symmetric thin-shell wormholes in $F(R)$ gravity with $(2+1)$ -dimensions	FIGUEROA-AGUIRRE, Griselda
12:15	[228] Wormhole geometries induced by action-dependent Lagrangian theories	AYUSO MARAZUELA, Ismael

# Wednesday, 7 July 2021

## Wormholes, Energy Conditions and Time Machines: Block 2 (06:30 - 09:30)

-Conveners: Diego Rubiera-Garcia; Francisco Lobo

time	[id] title	presenter
06:30	[259] The warp drive geometry	ALCUBIERRE, Miguel
06:50	[716] Tractor beams, pressor beams, and stressor beams within the context of general relativity.	Prof. VISSER, Matt
07:20	[656] Hyper-Fast Positive Energy Warp Drives	LENTZ, Erik
07:40	[904] Introducing Physical Warp Drives	BOBRICK, Alexey
08:00	[1000] Perfect Fluid Warp Drive Solutions with the Cosmological Constant	SANTOS PEREIRA, Osvaldo Luiz
08:15	[109] Gravitational perturbations in the Newman-Penrose formalism: Applications to wormholes	DEL ÁGUILA RODRÍGUEZ, Juan Carlos
08:30	[642] Geometry, matter, quasi-normal modes and echoes in a family of ultrastatic wormholes	Ms DUTTA ROY, Poulami
08:45	[828] Scalar absorption: Black holes versus wormholes	DUARTE LIMA JUNIOR, Haroldo Cilas
09:00	[807] A singularity theorem for evaporating black holes	KONTOU, Eleni-Alexandra
09:10	[340] Looking at quantization of a wave function, from Weber(1961), to signals from wavefunctions at the mouth of a wormhole	BECKWITH, Andrew
09:20	[1026] Symmetries and geometric spacetime: towards a new paradigm	CABRAL, Francisco