# Nuclear and astrophysics aspects for the rapid neutron capture process in the era of multimessenger observations

## Monday, 1 July 2019

#### **Session** - Meeting room (09:25 - 10:45)

time [id] title	presenter
09:25 [16] Neutron capture elements in the Early Universe	CESCUTTI, Gabriele
10:00 [19] Galactic Chemical Evolution of r-Process Elements	CÔTÉ, Benoit

#### **Session** - Meeting room (11:10 - 12:30)

time	[id] title	presenter
	[2] Improving the nuclear energy density functionals: constraints from the ground state and collective excitations	PAAR, Nils
	[14] How to deal with neutrinos in simulations of neutron-star mergers and core-collapse supernovae?	JUST, Oliver

#### **Session** - Meeting room (14:30 - 16:00)

time [id] title	presenter
14:30 [28] Supernovae, neutron stars, and chemical evolution	FROEHLICH, Carla
15:05 [27] Neutron star mergers: neutrinos and r-process nucleosynthesis	MCLAUGHLIN, Gail

#### **Session** - Meeting room (16:30 - 17:45)

time [id] title	presenter
16:30 [29] Discussion	

### **Tuesday, 2 July 2019**

#### **Session** - Meeting room (09:00 - 10:30)

time	[id] title	presenter
	[30] r-process contributions from massive star explosions triggered by the hadron-quark phase transition	FISCHER, Tobias
09:35	[3] Microscopic description of fission for the r-process in neutron-star mergers ejecta	Dr LEMAÎTRE, jean-françois

#### **Session** - Meeting room (11:00 - 12:30)

time	[id] title	presenter
	[31] Nuclear reaction theory for the era of multi-messenger observations: capture cross sections from indirect measurements	ESCHER, Jutta
	[20] The creation of the first r-process peak in neutron star mergers, impact of nuclear masses and beta decay rates.	NIKAS, Stylianos

#### **Session** - Meeting room (14:30 - 16:00)

time	[id] title	presenter
14:30	[1] Nuclear astrophysics in the era of multi-messenger observations at INFN-LNS	LA COGNATA, Marco
15:05	[23] Constraining neutron-capture reactions for the r process	SPYROU, Artemis

#### **Session** - Meeting room (16:30 - 17:50)

time [id] title		presenter
16:30	[32] Nuclear fission for the r-process in the era of multi-messenger observations	MUMPOWER, Matthew
17:05	[12] New Approach for Determination of Stellar Nucleosynthesis Abundances	Dr PRITYCHENKO, Boris

## Wednesday, 3 July 2019

#### **Session** - Meeting room (09:00 - 10:30)

time [id] title		presenter
09:00 [18] SH MERGE	ELL MODEL FAR FROM STABILITY: ISLANDS OF INVERSION ERS	NOWACKI, Frederic
09:35 [22] To	wards a better understanding of dense matter with gravitational waves	MARGUERON, Jérôme

#### **Session** - Meeting room (11:00 - 12:30)

time [id] title	presenter
11:00 [21] Beta-delayed neutron studies with the BRIKEN setup	DILLMANN, Iris
11:35 [33] r-process studies at RIBF	NISHIMURA, Shunji

#### **Session** - Meeting room (14:30 - 16:00)

time	[id] title	presenter
14:30	[34] Multimessenger area: Opportunities for future experiments at ISAC-II, TRIUMF	MUECHER, Dennis
15:05	[35] Bayesian extrapolation of nuclear observables towards the neutron drip line	NEUFCOURT, Leo

#### **Session** - Meeting room (16:30 - 17:50)

tin	ne [id] title	presenter
16	[7] Mass measurements in the vicinity of the N=40 subshell closure	CANETE, Laetitia

## Thursday, 4 July 2019

#### **Session** - Meeting room (09:00 - 10:30)

time	[id] title	presenter
09:00	[13] r-Process Sites, their Ejecta Composition, and their Imprint in Galactic Chemical Evolution	THIELEMANN, Friedrich-K.
09:35	[6] Mass ejection from neutron star mergers	BAUSWEIN, Andreas

#### **Session** - Meeting room (11:00 - 12:30)

time	[id] title	presenter
11:00	[17] The unknown site of actinide nucleosynthesis – clues from extraterrestrial Pu-244 in deep-sea archives	WALLNER, Anton FROEHLICH, Michaela KINOSHITA, Norikaru HOTCHKIS, Michael PAVETICH, Stefan TIMS, Stephan
11:35	[24] Nucleosynthetic signatures of astrophysical r-process sites	EICHLER, Marius

#### **Session** - Meeting room (14:30 - 16:00)

time [id] title	presenter
14:30 [36] Looking for what is not s process	PIGNATARI, Marco
15:05 [10] The solar r-process residual distribution	Dr CRISTALLO, Sergio

#### **Session** - Meeting room (16:30 - 17:50)

time [id] title	presenter
16:30 [11] The nuclear physics of r-process abundance patterns	SURMAN, Rebecca
17:05 [4] Stellar Models for R-process Nuclear Astrophysics	LAUER, Amber

## Friday, 5 July 2019

#### **Session** - Meeting room (09:00 - 10:30)

time [id] title	presenter
09:00 [5] Pygmy Modes and Astrophysical Reaction Rates	LENSKE, Horst
09:25 [37] Electron capture on nuclei at finite temperature based on relativistic density functional	RAVLIC, Ante
09:50 [9] Studying the structure of the A=98 decay products	RAJABALI, Mustafa

#### **Session** - Meeting room (11:00 - 12:00)

time [id] title	presenter
11:00 [40] R-process experiments with fast ion beams at the NSCL and FRIB	ESTRADE, Alfredo
11:25 [41] Concluding remarks	