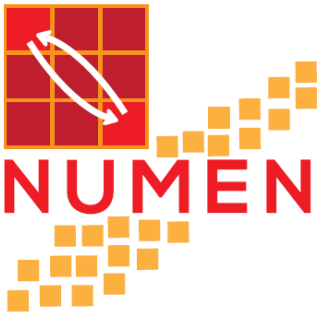

NUMEN

Determining the Nuclear Matrix Elements of Neutrinoless Double Beta Decays by Heavy-Ion Double Charge Exchange Reactions

Organization (01 July 2019)

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Work Packages

WP	COORDINATOR *COMPONENTS*	FORESEEN ACTIVITY	INSTITUTION
WP_0	**F.Cappuzzello, C.Agodi**	**SPOKESPERSON** Scientific responsibility; Interface with the external; WP coordination activities; Coordinating resources and collaborations; MAGNEX upgrade	[1] [3]
WP_1	**M.Cavallaro** *L.Acosta, P.Adsley, C.Agodi, C.Altana, P.Amador Valenzuela, D.Bonanno, T.Borello Lewin, I.Boztosun, G.A.Brischetto, S.Calabrese, D.Calvo, L. Campajola, V.Capirossi, F.Cappuzzello, D.Carbone, P. Casolaro, M.Cavallaro, E.R.Chávez Lomelí, R.Chen, I.Ciraldo, F.Delaunay, N.Deshmukh, H.Djapo, P.Finocchiaro, S.Firat, M.Fisichella, A.Foti, G.Gallo, A.Hacisalihoglu, L.La Fauci, F.Iazzi, H.Jivan, G.Lanzalone, R.Linares, D.Lo Presti, J.Ma, N.Medina, D.R.Mendes, M. Moralles, R.Neveling, J.R.B.Oliveira, A.Pakou, L.Pandola, L.Pellegri, H.Petrascu, F.Pinna, S.Reito, P.Ries, G.Russo, R.B.B.Santos, O.Sgouros, M.A.G.daSilveira, S.O.Solakcı, V.Soukeras, G.Souliotis, A.Spatafora, D.Torresi, S.Tudisco, J.S.Wang, Y.Y.Yang, A.Yildirin, V.A.B.Zagatto*	**MAGNEX-EXPERIMENTS** Experiment set up; Facility optimization; Experiment shifts; Data taking	[1] [2] [3] [4] [5] [6] [7] [8] [9] [14] [16] [17] [18] [19] [20] [21] [22] [23] [26] [27] [28] [29] [32] [33] [36] [37] [39] [40]
WP_2	**D.Carbone, R.Linares** *C.Agodi, P.Amador-Valenzuela, G.A.Brischetto, S.Calabrese, F.Cappuzzello, D.Carbone, M.Cavallaro, I.Ciraldo, F.Delaunay, N.Deshmukh, S.Firat, M.Fisichella, A.Hacisalihoglu, L.La Fauci, R.Linares, D.R.Mendes, A.Pakou, O.Sgouros, M.A.G.daSilveira, S.O.Solakcı, V.Soukeras, A.Spatafora, D.Torresi, V.A.B.Zagatto*	**DATA REDUCTION** Extraction of energy spectra and absolute cross sections	[1] [3] [4] [5] [9] [16] [17] [19][20] [21] [23] [27] [29] [33]
WP_3	**D.Torresi, M.Cavallaro[a]** *L.Acosta, P.Adsley, C.Agodi, D.Bonanno, D.Calvo, F.Cappuzzello, D.Carbone, M.Cavallaro, E.R.Chávez Lomelí, H.Djapo, G.Gallo, H.Jivan, Y.Kucuk, D.LoPresti, R.Neveling, L.Pellegri, H.Petrascu, D.Torresi, A.Yildirin, V.A.B.Zagatto*	**GAS TRACKER** Design, building and test of the gas prototype and of the final tracker	[1] [2] [3] [4] [22] [27] [28] [32] [39] [40]

WP_4	**S.Tudisco, D.Carbone**[b,c] *C.Agodi, C.Altana, G.A.Brischetto, S.Calabrese, F.Cappuzzello, D.Carbone, M.Cavallaro, G.Lanzalone, F.La Via, S.Tudisco*	**PARTICLE IDENTIFICATION SYSTEM** Building prototypes and tests with SiC technology; Drawing final detector; Building the final detector	[1] [2] [3] [5] [14] [15]
WP_5	**D.LoPresti** *D.Bonanno, G.De Geronimo, G.Gallo, R.Linares, D.LoPresti, N.Medina, D.R.Mendes, J.R.B.Oliveira, S.Reito, R.B.B.Santos, M.A.G.da Silveira, V.A.B.Zagatto*	**ELECTRONICS** Front-end electronics; Readout electronics; Slow-control; Data acquisition; Rad-hard electronic devices	[1] [2] [3] [16] [17] [19] [35]
WP_6	**J.R.B.Oliveira, P.Finocchiaro** *C.Agodi, P.Adsley, I.Boztosun, F.Cappuzzello, H.Djapo, P.Finocchiaro, D.C. Flechas Garcia, H.Jivan, Y.Kucuk, R.Linares, N.Medina, D.R.Mendes, M.Moralles, R.Neveling, J.R.B.Oliveira, L.Pellegri, N.Pietralla, P.Ries, S.O.Solakcı, V.Werner, A.Yildirin, V.A.B.Zagatto*	**GAMMA-RAYS DETECTOR** Choice of the scintillator; Building prototypes; Test of prototypes; Design of the final detector	[1] [3] [16] [17] [18] [26] [27] [28] [39] [40]
WP_7	**M.Colonna, E.Santopinto**[d] *N.Auerbach, J.Barea, J.Bellone, R.Bijker, V.Branchina, S. Burrello, M.Colonna, J.L.Ferreira, J.Ferretti, H.Garcia-Tecocoatzi, J.Kotila, J.A.Lay, H.Lenske, J.Lubian, G.Russo, E.Santopinto, R.I.M.Vsevolodovna*	**THEORY** Folding of nuclear structure and reaction models; Development of microscopic DCE theory; Extraction of matrix elements from DCE cross sections	[1] [2] [3] [11] [12] [13] [16] [17] [24] [25] [30] [31] [34] [38]
WP_8	**L.Calabretta** *L.Calabretta, L. Campajola, P. Casolaro, G.D'Agostino, L.Neri, A.D.Russo*	**BEAM LINES UPGRADE** Beam transport line, beam dump	[1], [6], [7]
WP_9	**D.Calvo** *C.Agodi, S.Brasolin, O.Brunasso, L.Calabretta, D.Calvo, V.Capirossi, D.Carbone, F.Cappuzzello, M.Cavallaro, F.Delaunay, C.Ferraresi, P.Finocchiaro, M.Fisichella, F.Iazzi, D.LoPresti, P.Mereu, H.Petrascu, J.R.B.Oliveira, L.Pandola, F.Pinna, L.Serbina, S.Tudisco*	**INTEGRATION** Mechanical integration of devices; Design and construction of vacuum chambers;	[1] [2] [3] [4] [8] [9] [10] [16] [32]
WP_10	**L.Pandola** *I.Boztosun, G.A.Brischetto, S.Calabrese, D.Carbone, P.Finocchiaro, L.Pandola, O.Sgouros, V.Soukeras, A.Spatafora, A.Yildirin*	**COMPUTATION** DAQ; Computation; Simulations; Storage; Web management	[1] [3] [5] [27]
WP_11	**P.Finocchiaro**[e] *C.Agodi, G.A.Brischetto, S.Calabrese, F.Cappuzzello, D.Carbone, M.Cavallaro, R.Chen, P.Finocchiaro, J.Ma, J.S.Wang, Y.Y.Yang*	CsI FOR PID Study of CsI technology for NUMEN PID;	[1] [3] [5] [36] [37]

		Construction of cristals and assembly with suitable read-out systems; Project of final detectors; Building of the final detector	
WP_12	**F.Iazzi**[f] *L.Acosta, C.Agodi, O.Brunasso, D.Calvo, V, Capirossi, F.Cappuzzello, L.E.Charon Garcia, E.Chavez Lomelì, F.Delaunay, K.De Los Rios, C.Ferraresi, M.Fisichella, A.Huerta Hernandez, D.J.Marin Lambarri, J.Mas Ruiz, J.R.B.Oliveira, F.Pinna, H.Vargas Hernandez, V.A.B.Zagatto*	**DEVELOPMENT OF RADIATION TOLERANT TARGETS**	[1] [3] [4] [8] [9] [10] [16] [22]

[a] Collaboration with Prof. W. Mittig, Dr. M. Cortesi and Dr. D. Bazin MSU.

[b] Collaboration with STM microelectronics.

[c] Synergy with INFN CALL SICILIA.

[d] Collaboration with Prof. R. Broglia (Niels Bohr Institute Copenhagen); Prof. O. Civitarese (La Plata University), Dr. G. Potel (MSU)

[e] Collaboration with G. Cosentino (INFN-LNS)

[f] Collaboration with Prof. H. Werner-Becker (University of Bochum)

Technical Board

TB	COMPONENTS	FORESEEN ACTIVITY	INSTITUTION
Board	**F.Cappuzzello, C.Agodi** *C.Agodi, L.Calabretta, D.Calvo, F.Cappuzzello, D.Carbone, M.Cavallaro, M.Colonna, P.Finocchiaro, F.Iazzi, R.Linares, D.LoPresti, J.R.B.Oliveira, L.Pandola, E.Santopinto, D.Torresi, S.Tudisco*	WP coordination activities; Publications management; Conferences management	[1] [2] [3] [4] [8] [11] [16]

Publication Committee

PC	COMPONENTS	FORESEEN ACTIVITY	INSTITUTION
	D.Calvo, D. Carbone, D. Lo Presti, S. Tudisco	Publications management	[1] [2] [3] [4]

Speaker Committee

SC	COMPONENTS	FORESEEN ACTIVITY	INSTITUTION
	M. Cavallaro, M. Colonna, J.R.B. Oliveira, L. Pandola	Conferences management	[1] [16]