THE ROMANIAN IMMIGRANTS FROM ITALY IN THE CONTEXT OF THE RECENT ECONOMIC CRISIS

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Abstract— considering the influence of the recent economic crisis on migration process, the main aim of this paper is to identify changes in the structure of Romanian migration to Italy and the impact of various factors on their job losses at a certain time. Using statistical tests and a random-effects ordered logistic regression based on the survey data, we showed significant differences between the number of males and females and also in their age distribution. The economic crisis increased the gap between the number of males and females. The results based on the regression model indicate that the economic crisis did not have a significant impact on the job losses of Romanian migrants at a certain time. Factors like gender and professional position explain the unemployment of migrants. The results are confirmed by the expectations as foreign women have more chances to find a job in Italy as compared to men and the jobs in some sectors like services and construction are more vulnerable to unemployment.

Keywords--migrants; economic crisis; unemployment; labour market

I. INTRODUCTION

The largest community of migrants in Italy comes from Romania (more than 1.1 million Romanian migrants in 2016, according to the official statistics). Other large communities of migrants include people from Morocco, Albania, Ukraine, China, Philippines, Republic of Moldova, India and Bangladesh. These immigrants bring a positive contribution to Italian labour market, especially in the sectors with unskilled work where lack of labour resources has been observed. Most of Romanian immigrants in Italy are occupied in the sectors with considerable physical labour load, but also with low salaries and poor working conditions.

Romanian migrants started coming massively to Italy especially after 1999, language not being a considerable barrier. In 2002, the legislative changes attracted a large wave of the Romanians to Italy (a visa was not anymore required for Romanian citizens in the Schengen Zone). Moreover, Italian welfare system required more foreign workers in the care sector. Romania's integration in the EU made Romanian community in Italy quickly double, mostly due to the new political context allowing illegal immigrants get a legal status in Italy. The institutional framework was designed as to accept the presence of non-documented immigrants in the underground economy. Even though the recent economic crisis had a huge impact on Italian economy, this did not encourage too many migrants to come back to their origin countries, as the surveys indicated [15]. Even though the economic recession had different negative consequences for migrants, some authors argued that most of them will not come back to

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their countries of origin, since those countries might be affected by the economic crisis even more [8].

As all Eastern European countries, Romania is sending migrants to developed countries mostly due to economic reasons. Economic transition in these countries was characterized by high unemployment rates and the level of education for jobs begun to grow ([3]-[4], [27], [28], [35]) Moreover, specific trends at the labour markets of destination countries attracted migrants. In case of Italy, the society is seriously affected by ageing and many skilled women preferred to continue be part of the labour market. Thus, the family sector in Italy needs assistance for the elderly as provided by the immigrants [9]. The needs from the care sector made Italy change its migration policies, cheap and unqualified labour force from the new EU member states being the solution to the problems in several Italian economic sectors.

Beside the economic issues like high unemployment and low incomes, there are also other factors that forced Romanian people emigrate to Italy: corruption and lack of political stability [26]. Moreover, social networks created by Romanian migrants in Italy encouraged further immigration.

The recent economic context marked by the world economic crisis brought unemployment issues even for migrants, a large number of Romanian migrants being also affected. A decrease in the number of Romanian immigrants in Italy was observed in 2011 due to the economic recession, but since then the number of immigrants begun slowly to increase. It seems that men are the most affected, while for females it is quite easy to find another job in Italy.

The recent economic crisis has worsened the migrants' living conditions and generate mutations in their demographical structure, affecting also their social and economic integration with the EU citizens. The economic literature has not not paid considerable attention to the strategies which are supposed to help the unemployed migrants adapt to new transformations at the labour market. Focusing on the migrants established in Italy, Sacchetto and Vianello (2016) assessed the social and economic effects of the recession on Italian migrant workers coming from Romania and Morocco [24]. A particular attention is assigned to coping strategies. Based on the data from 170 in-depth interviews, the authors have shown that the migrants in the northeast Italy coming from Morocco and Romania use various strategies to cope with unemployment. The two groups of migrants used the same ways for minimizing the living costs. Moroccans are more mobile than Romanian people who are more stable in their intention to remain in Italy. Discrimination is a more acute problem for Moroccans, but they have the support of family or of the religious community. Due to the appurtenance of various social networks, Romanian migrants in Italy have more chances to find new jobs as compared to the Moroccans.

Focusing on the relationship between migration and the world economic crisis, many studies analyzed the increases in migrants' discriminations and their living and working conditions worsening [31]. Migrant workers are more vulnerable to unemployment than the local labour force and they accept easier unskilled jobs with low wages, because most of them could not accept to remain unemployed for a long period [23]. Life quality of the migrants gets worse due to several important causes:

- Foreign works have fewer rights than the nationals and less welfare protection (by losing their jobs, they also loose the principal source of income and thus are forced to come back home) [7];

- In general, migrants are temporary employed in the sectors most exposed to economic crisis like services and construction (Papademetriou et al. 2010);

- Most of the migrants have low-skilled jobs that are the most vulnerable to economic changes [2];

- As their labour rights are not respected, migrants are the most exposed to many social risks [30].

Migrant workers are not affected by unemployment in the same way as local workers are. The labour market characteristics influence the likelihood of unemployment [11]. Moreover, factors like country of origin, race and ethnicity often precondition the degree of discrimination and consequently the place of migrants at the local labour market. Most migrants can be found in cyclical industries and could be fast replaced [16]. Migration patterns are also important, since migrants with a longer migratory duration are not so exposed to discrimination and social exclusion, as compared to new migrants [6]. Demographic characteristics like gender also play an essential role, since gender repartition in some economic sectors leads to different exposure to unemployment [19].

II. DATA AND METHODS

In this empirical research, we will study some characteristics of Romanian migrants from Italy in the period 2006-2017, making comparisons in different periods with a particular attention given to crisis period. There is a variable number of migrants that is included in the database each year, but each sample is representative.

The source of data is represented by the data registered through Eurostat survey for the research "Case Study on Labour Force" for the period 2006-2017. The database is provided by the National Institute for Statistics in Italy (Istat). We will focus only on the Romanian immigrants located in Italy.

Some questions in the questionnaires refer to demographic characteristics like age, gender, family typology and marital status. We will focus on the differences between demographic structure of Romanian migrants in Italy on the entire period (2006-2017), but also in the periods delimited by the economic crisis: 2006-2008 (before economic crisis), 2009-2011 (period of economic recession in Italy) and 2012-2017 (post-crisis period). For making comparisons between migrants in various periods a t-test will be employed.

As we can observe from Figure 1, a considerable decrease in the number of Romanian migrants was observed in 2011 both for males and females. In the period 2006-2017, the number of females was always superior to the number of males.

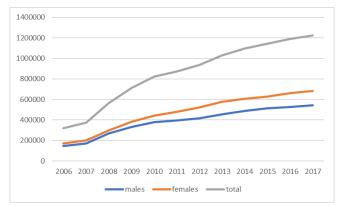


Figure 1: The number of Romanian migrants in Italy in the period 2006-2017

Other questions are related to the period of absence from work and professional position in the main activity. The absence from work because of period(s) of unemployment is built as an alternative variable with the values "Yes" and "No". The professional position in the main activity refers to detailed variants that are included in three types: employee, collaborator and independent.

We will try to explain the absence from work through other variables using a panel data approach, where the cross-sections are represented by individuals and the time series by the period 2006-2017. A dummy variable will be included in the model "crisis" which takes the value 1 for the years of crisis (2009, 2010 and 2011) and 0 for the rest of the years in the mentioned period. A panel logistic regression model will be estimated having the absence from work as dependent variable. The panel is unbalanced since a different number of migrants is included each year in the sample.

III. RESULTS

We will identify the differences between Romanian migrants according to gender and taking into account various periods to put into light the influence of economic crisis on the structure of the migrants. In table 1, the results of the comparison between males and females are displayed.

According to t test, there are significant differences between males and females in the period 2006-2017 (p-value is lower than 0.05). In 2007, there were more females than males (with 25, 862 more females than males). In 2017, there were also more females than males (with 134, 888 more females than males).

Indicator	males	females
Mean	372206.4545	452340.3636
Variance	17141258115	29177816934
Pearson Correlation		0.996870933
Hypothesized Mean Difference	0	
df	10	
t Stat		-6.387600325
P(T<=t) one-tail		3.97897E-05
t Critical one-tail		1.812461123
P(T<=t) two-tail		7.95795E-05
t Critical two-tail	2	2.228138852

Table 1: Differences between number of Romanian males and females in Italy (2006-2017)

The number of males increased by 3.61 times in 2017 compared to 2006, while the number of females increased by almost 3.9 times in 2017 with respect to 2006. In the entire period, the number of males increased, in average, by 1.13 times and the number of females by almost 1.15 times.

According to t test, there are not significant differences between males and females according to age group in the period 2006-2008 (p-value is 0.0721 which is higher than 0.05). The results are presented in Table 2.

Table 2: Differences between males and females regarding group age (2006-2008)

Indicator	males	females
Mean	11500.2549	13161.54902
Variance	135339685	186220778.1
Pearson Correlation		0.972886329
Hypothesized Mean Difference	0	
df	16	
t Stat		-1.925113805
P(T<=t) one-tail		0.036090511
t Critical one-tail		1.745883676
P(T<=t) two-tail		0.072181023
t Critical two-tail		2.119905299

According to t test, there are significant differences between males and females according to age group in the period 2009-2011 (p-value is 0.012 which is lower than 0.05). The results are presented in Table 3.

 Table 3: Differences between males and females regarding group age (2009-2011)

I Indicator	males	females
Mean	21664.29412	25561.15686
Variance	420373567	591164019.3
Pearson Correlation		0.982090443
Hypothesized		
Mean Difference	0	
df	16	
t Stat		-2.823644242
P(T<=t) one-tail		0.006114804
t Critical one-tail		1.745883676
P(T<=t) two-tail		0.012229608
t Critical two-tail		2.119905299

According to t test, there are significant differences between males and females according to age group in the period 2012-2016 (p-value is 0.005 which is lower than 0.05). The results are presented in Table 4.

Table 4: Differences between males and females regarding group age (2012-2017)

I Indicator	males	females
Mean	30078.78431	37280.66667
Variance	623780137.5	984148135.8
Pearson Correlation		0.970079089
Hypothesized		
Mean Difference	0	
df	16	
t Stat		-3.169191031
P(T<=t) one-tail		0.002975305
t Critical one-tail		1.745883676
P(T<=t) two-tail		0.00595061
t Critical two-tail		2.119905299

Differences between males, respectively females according to age group are also checked in various periods and the results are shown in Table 5.

The statistical tests indicated that there are significant differences between the number of Romanian males in Italy during the three periods in the sense that the number significantly decreased from 2006 to 2011 and then increased again in the next period.

Table 5: Differences in gender between Romanian migrants in Italy in various periods

Gender	Periods	t- computed	
Males	2006-2008 and 2009-2011	-4.427786339	
	2006-2008 and 2012-2016	-5.184822857	
	2009-2011 and 2012-2016	-4.628612942	
Females	2006-2008 and 2009-2011	-4.370992615	
	2006-2008 and 2012-2016	-4.876026506	
	2009-2011 and 2012-2016	-3.891725861	

The statistical tests indicated that there are significant differences between the number of Romanian females in Italy during the three periods in the sense that the number significantly increased from a period to another.

The logistic regression on panel data explained the absence from work caused by unemployment at a certain time in the period 2006-2017. Even if the overall model is valid, some factors proved to be insignificant from statistical point of view, as we can see from Table 6.

Table 6: The Random-effects ordered logistic regression (2006-2017)

Variable	Coefficient	Calculated statistic	Sig.
Professional	-0.867	-9.72	0.000
position			
Family typology	-0.0028	-0.14	0.889
Crisis period	-0.032	-0.11	0.913
Gender	1.8139	4.97	0.000

Prob.>chi-square=0.000

The crisis period did not determine the loose of jobs more than in the other periods. Family typology was not important in the maintenance or loose of a job. On the other hand, gender and professional position are significant in explaining the absence of a job in a certain moment of a year. The migrants that work in sectors that require unskilled jobs are more vulnerable. Moreover, the males have more chances to lose the job than women, facts that are confirmed by the previous results showing a larger number of females compared to males.

IV. DISCUSSION AND CONCLUSIONS

As expected, there is a significant larger number of females from Romania that established in Italy compared to men. This tendency is explained by the structure of the Italian labour market that mostly needs foreign workers in sectors that are dominated by women (health sector, elderly care, domestic work, jobs in restaurants and hotels) [29]. The large number of immigrants determined disturbances on labour market [13]. Moreover, the economic crisis that significantly affected the construction sector and agriculture determined a decrease in the number of Romanian males. This is a specific characteristic of the migration process in case of Romanians from Italy, being different from other immigration waves from history (the Portuguese migrants that came in France in the period of dictatorship, the migration of Turkish in Germany after the Second World War). In the case of the Romanian migrants, kinship migration chains are essential for relocation needs [34]. Other opinions show that men prefer to come back in Romania and develop businesses with the people from Italy, while women are better integrated in the Italian families and less eager to return to Romania [33]. Ref. [17] showed that the gender distribution might be explained by the reasons for migration that are different for males and females. Most of the Romanian men chose to establish in Italy for a job, while women looked for better career prospects and for family reunion. Men tend to take in an individual way the decision to migrate for improving the economic condition, while females take a joint family decision that could offer a better position on labour market [8], [17].

These immigrants were quite well accepted on the Italian labour market and they gradually integrated in the society, because they remained at the lowest level of the professional and social condition, being ready to make the most unpleasant work tasks for money [1]. Even if some of them have a high education level, they prefer to make a slave labour ([18], [22]) as long as they receive a wage. In general, in Italy the unemployment rate for immigrants are low, but they have jobs that require few qualifications [21]. Even if the migrants receive a low remuneration in Italy, most of them spend a large amount of money in their country of origin with a lower cost of living.

In Italy, the level of education is positively correlated with the probability to avoid unemployment [12]. By contrast, this relation does not exist for immigrants. Higher education does not ensure any protection for

immigrants against the risk of unemployment. The skills acquired in another educational system are considered useless, because human capital is, in most cases, country-specific [14]. The foreign qualifications are not usually recognized in Italy. Recent immigrants that do not have enough economic and social resources could not allow to wait too much to get a job and are forced to accept a job under poor working conditions. Therefore, in Italy the employment opportunities offered to immigrants are directed to unskilled positions.

Most of the Romanian migrants in Italy are young people, because of the high unemployment among youngers in the country of origin [25], [32]. Moreover, their physical capacity of work required in their jobs is higher at this age compared to older people.

Our results regarding the impact of economic crisis on Romanian migrants from Italy are in line with Bonifazi and Marini (2014) who showed that the economic crisis affected the male migrants more than Italian employees [4].

The recent financial and economic crisis affected the European Union severely since 2008. Started in advanced economies, the economic crisis did not have an equally distributed impact over the world. Some countries, especially for the North, have managed the crisis issues relatively well, recovering from quickly from the initial financial downturn. However, in the South, the high unemployment rates, long-term financial instability and worsening living conditions persisted. Labour market was also deeply affected by the economic crisis in Italy that generated underemployment, job insecurity and less quality of work [5]. However, our empirical results showed that the economic crisis was not the real cause of periods of unemployment among Romanian migrants from Italy. Changes in other factors caused by economic crisis influenced the absence of work. The professional position in the main activity that changed because of economic crisis issues had a significant impact on Romanians' integration on Italian labour market. The economic crisis brought rises in unemployment rates especially for younger people in Italy and for specific sectors like construction, restaurants, hotels and some industrial sectors. The crisis came with a significant increase in part-time employment [10]. People with short-term contract, among them being many migrants, were more affected than workers with long-run contract. Small companies were more affected being forced to employ less workers. Construction sector in Italy that provided jobs for many Romanian males was severely affected by crisis with a drop of almost 10% in the number of companies in the field in the period 2008-2014. Agricultural sector was also negatively affected by the economic crisis translated into the production decrease. However, the weak economic situation from Romania did not encourage the Romanian migrants to come back home.

As expected, the gender had a significant impact on the period of unemployment in the period 2006-2016. Females find easier a new job in care and health sector, knowing that elderly assistance is required in Italy. Even if the wages decreased in this sector, there are still employment opportunities compared to the sectors that require intensive manual work of men.

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REFERENCES

- 1. Ambrosini, Maurizio. 2013. Immigration in Italy: Between economic acceptance and political rejection. *Journal of international migration and integration*, 14(1): 175-194. https://doi.org/10.1007/s12134-011-0231-3
- 2. Awad, Ibrahim. 2009. *The global economic crisis and migrant workers: impact and response*. Geneve: International Labour Office.
- 3. Bilan, Yuriy. (2014). Migration Aspirations on the Outskirts of Europe: Social and Economic Dimensions. *Transformations in Business & Economics*, 13(2B), 604-614.
- 4. Bonifazi, Corrado, and Marini, Cristiano. 2014. The impact of the economic crisis on foreigners in the Italian labour market. *Journal of Ethnic and Migration Studies*, 40(3): 493-511. https://doi.org/10.1080/1369183x.2013.829710
- 5. Boschetto, Barbara, De Rosa, Eugenia, and Marini, Cristiano. 2016. Work-related Stress and Associated Factors in Italy: a Comparison Before and During the Economic Crisis. Rivista internazionale di scienze sociali, 3(3/4): 283-300.
- Bradatan, Cristina, E., and Sandu, Dumitru. 2012. Before crisis: gender and economic outcomes of the two largest immigrant communities in Spain. *International Migration Review*, 46(1): 221–243. DOI: 10.1111/j.1747-7379.2012.00885.x
- 7. Calavita, Kitty. 2005. *Immigrants at the margins. Law, race and exclusion in Southern Europe*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511493942
- 8. Cohen, Erez. 2017. Effect of Welfare and Employment Policies on the Correlation between Migration and Unemployment. *Economics & Sociology*, *10*(1), 246-264.
- Del Boca Daniela, and Venturini Alessandra. 2016. *Migration in Italy is backing the old age welfare*. in Labor Migration, EU Enlargement, and the Great Recession, Springer Berlin Heidelberg, pp. 59-83. https://doi.org/10.1007/978-3-662-45320-9_3
- 10. Di Quirico, Roberto. 2010. Italy and the global economic crisis. Bulletin of Italian Politics, 2(2), 3-19.
- 11. Fleischmann, Fenella, and Dronkers, Jaap. 2010. Unemployment among immigrants in European labour markets. An analysis of origin and destination effects. *Work, Employment and Society, 24*(2): 337–354. https://doi.org/10.1177/0950017010362153
- 12. Fullin, Giovanna, and Reyneri, Emilio. 2011. Low unemployment and bad jobs for new immigrants in Italy. *International Migration*, 49(1): 118-147. https://doi.org/10.1111/j.1468-2435.2009.00594.x
- 13. Gallardo, Gustavo, De, Luna, Korneeva, Elena, and Strielkowski, Wadim. 2016. Integration of migrants in the EU: lessons and implications for the EU migration policies. *Journal of International Studies*, *9*(2), 244-253. DOI: 10.14254/2071-8330.2016/9-2/19
- 14. Heath, Anthony, and Yu, Soojin. 2005. Explaining ethnic minority disadvantage, in A.Heath, J.Ermisch, and D.Gallie (*Eds*), Understanding Social Change, Oxford University Press, Oxford: 187–224.
- 15. Hinks Tim, and Davies Simon. 2015. Intentions to return: evidence from Romanian migrants. *World Bank Policy Research Working Paper*, 7166: 1-31. https://doi.org/10.1596/1813-9450-7166
- 16. IOM. 2010. *Migration and the economic crisis in the European Union: implications for policy*. Brussels: International Organization for Migration.
- 17. Mara, Isilda. 2012. Surveying Romanian migrants in Italy before and after the EU Accession: migration plans, labour market features and social inclusion. Vienna Institute for International Economic Studies.
- Minneci, Fabiana. 2015. If there were a'Highly Skilled Red Octopus'? The Case of Italian Highly Skilled Mobility at Times of Crisis. *Economics & Sociology*, 8(3), 170-182. DOI: 10.14254/2071-789X.2015/8-3/13
- 19. Otobe, Naoko. 2011. *Global economic crisis, gender and employment: the impact and policy response.* Geneva: International Labour Organization.
- 20. Papademetriou, Demetrios, G., Sumption, Madeleine, Terrazas, Aaron, Burkert, Carola, Loyal, Stephen, and Ferrero-Turrión, Rachel. 2010. Migration and immigrants two years after the financial collapse: Where do we stand. *Migration Policy Institute*.
- Reyneri, Emilio, and Fullin, Giovanna. 2011. Labour market penalties of new immigrants in new and old receiving West European countries. *International Migration*, 49(1): 31-57. https://doi.org/10.1111/j.1468-2435.2009.00593.x
- 22. Reyneri, Emilio. 2006. From underground economy to the occupational downgrading: Education and the labor market insertion of migrants in Italy. *Revista Española de Investigaciones Sociologicas*, 116.
- 23. Reyneri, Emilio. 2010. L'impatto della crisi sull'inserimento degli immigrati nel mercato del lavoro dell'Italia e degli altri paesi dell'Europa meridionale. Prisma. *Economia Società Lavoro*, 2: 17–33.

- 24. Sacchetto, Devi, and Vianello, Francesca, Alice. (2016). Unemployed Migrants Coping with the Economic Crisis. Romanians and Moroccans in Italy. *Journal of International Migration and Integration*, 17(3): 839-852. https://doi.org/10.1007/s12134-015-0440-2
- 25. Schreiner, Josef. 2008. Labor Markets in central, eastern and southeastern european eU Member states: General trends and Migration effects. *focus on european economic integration*, 2:82-99.
- 26. Simionescu, Mihaela. 2016. Macroeconomic Determinants of Permanent Emigration from Romania: a Bayesian Approach. *Journal of International Studies*, 9(2):170-180. DOI: 10.14254/2071-8330.2016/9-2/13
- Simionescu, Mihaela, Ciuiu, D., Bilan, Yuriy, & Strielkowski, Wadim. (2016). GDP and Net Migration in Some Eastern and South-Eastern Countries of Europe. A Panel Data and Bayesian Approach. *Montenegrin Journal of Economics*, 12(2), 161-175. doi:10.14254/1800-5845.2016/12-1/10
- 28. Streimikiene, Dalia, Bilan, Yuriy, Jasinskas, E., & Griksaite, R. (2016). Migration Trends in Lithuania and other new EU Member States. *Transformations in Business & Economics*, 15(1), 21-33.
- Stan, Răzvan. 2005. Patterns and Socio-Economic consequences of International labour migration on Catholic and Orthodox villages from Eastern Romania (Neamt county). A Tarkaság Dicsérete. Az Erasmus Kollégium Diákjainak Tanulmányai. Budapest: Erasmus Kollégium Alapítvány: 379-393.
- 30. Standing, Guy. 2011. The precariat. The new dangerous class. London: Bloomsbury.
- 31. Tilly, Christ. 2011. The impact of the economic crisis on international migration: a review. *Work, Employment and Society*, 25(4): 675–692. DOI: https://doi.org/10.1177/0950017011421799
- 32. Uccellini, Cara, Margaret. 2010. Outsiders after accession: The case of Romanian migrants in Italy, 1989–2009. *Political perspectives*, 4(2): 70-85.
- 33. Vlase, Ionela. 2013. 'My husband is a patriot!': gender and Romanian family return migration from Italy. *Journal of Ethnic and Migration Studies*, 39(5): 741-758. http://dx.doi.org/10.1080/1369183X.2013.756661
- 34. Weber, Serge. 2004. Exploring some East-West migrant networks and their distant local dynamics. Ukrainian, Polish and Romanian migrants in Rome. *New waves: Migration from Eastern to Southern Europe. Lisbon: Luso-American Foundation.*
- Zaiceva, Anzelika, and Zimmermann, Klaus, F. 2016. *Returning home at times of trouble? Return migration of EU enlargement migrants during the crisis*. in Labor Migration, EU Enlargement, and the Great Recession, Springer Berlin Heidelberg, pp. 397-418. https://doi.org/10.1007/978-3-662-45320-9_16
- V.POOVIZHI, P.KIRUTHIKA, E.MADURA.M.E, and P.NARMATHA. "BLOCKCHAIN BASED UNFORGED LICENSE." International Journal of Communication and Computer Technologies 7 (2019), 4-7. doi:10.31838/ijccts/07.02.02
- 37. Sayin, U.A comparative review of the neuro-psychopharmacology of hallucinogen-induced altered states of consciousness: The uniqueness of some hallucinogens(2012) NeuroQuantology, 10 (2), pp. 316-340.
- 38. Conte, E., Todarello, O., Federici, A., Santacroce, N., Laterza, V., Khrennikov, A.Y.May we verify non-existing dispersion free ensembles by application of quantum mechanics in experiments at perceptive and cognitive level?(2012) NeuroQuantology, 10 (1), pp. 14-19.