The 2nd World Logic Prizes Contest, 7th UNILOG, Crete 2022

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Abstract. We discuss the evolution of the World Logic Prizes Contest. In a first section, we describe how this contest developed, on the one hand by the creation of the Universal Logic Prize starting in 2005 at the 1st World Congress and School on Universal Logic in Montreux, Switzerland, on the other hand by the creation of the Newton da Costa Logic Prize in Brazil in 2014. These two projects joined in 2018 by the organization of the 1st World Logic Prizes Contest at the 6th World Congress and School on Universal Logic in Vichy, France. In a second section, we talk about the organization of the 2nd World Logic Prizes Contest to take place in April 2022 at the 6th World Congress and School on Universal Logic in Crete, Greece. We explain that there will be 15 contestants from 15 different countries with a good geographic distribution. In a third section, we discuss how this project can develop in the future with the creation of more logic prizes, the creation of similar prizes in other fields and the organization of a World Scientific Prizes Contest.

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1. Background and Surrounding of the World Logic Prizes Contest

This triple issue of Logica Universalis contains papers that will be presented at the 2nd World Logic Prizes Contest that will take place in April 2022 in Crete during UNILOG’2022, the 7th World Congress and School on Universal Logic.

The First Edition of the World Logic Prizes Contest took place in Vichy, France, in June 2018, during the 6th World Congress and School on Universal Logic. There were 9 contestants from 9 different countries and their papers
were published after the event in a special double issue of *Logica Universalis* (see [10]).

The idea of these contests is to have as contestants, winners of a logic prize from a given country. The story of the logic prizes started in September 2014, when I created the *Newton da Costa Logic Prize* in Brazil, as a gift for the birthday of my former PhD advisor, the prize bearing his name. On the other hand, nine years before, I launched the *First World Congress and School on Universal Logic* (UNILOG) in Montreux, Switzerland, 2005. This event was related to the development of *Universal Logic*, conceived as a general theory of logical structures, which was influenced by the work on Newton da Costa work on paraconsistent logic and the theory of valuations (see [4]). At UNILOG’2005 there was a *Universal Logic Prize* which was thematic. Other thematic prizes were organized in the following editions of UNILOG, in order to promote the spirit of universal logic. Here is the complete list:

- 1st UNILOG, Montreux, 2005, *How to define identity between logics?*
- 2nd UNILOG, Xi’an 2007, *How to translate a logic into another one?*
- 3rd UNILOG, Lisbon, 2010, *How to combine logics?*
- 4th UNILOG, Rio de Janeiro, 2013, *Scope of logic theorems*
- 5th UNILOG, Istanbul, 2015, *The future of logic*

These prizes were sponsored by Birkhäuser, with whom we launched first a book in 2005 [5], and then in 2007 the journal *Logica Universalis* and the book series *Studies in Universal Logic*. For the 6th edition of UNILOG the two projects joined, the *Universal Logic Prize* being attributed to the winner of the *World Logic Prizes Contest*.

To launch the *World Logic Prizes Contest*, it was necessary to manage the creation of a reasonable number of logic prizes. My objective was 10, and the objective was reached, but there were only 9 contestants in Vichy because
Turkey decided not to attribute a prize. The creation of logic prizes is related to UNILOG but also to many other activities promoted by myself and LUA, the Logica Universalis Association, in particular the World Logic Day (Fig. 2), that I launched in 2019 and was recognized the same year as an UNESCO international day through a proposal I sent to the Brazilian Ambassador to UNESCO, Maria Edileuza Fontenele Reis, who I then met in Paris in April 2019.

Here is a list showing the development and evolution of the Universal Logic Project:

- 1992, Development of a general theory of logical structures
- 1993, The name “Universal Logic” is coined for this theory
- 1994, Publication of the paper “Universal Logic” [2]
- 1995, PhD Recherches sur la logique universelle [3]
- 2005, 1st World Congress and School on Universal Logic, Montreux, Switzerland
- 2007, Launch of the journal Logica Universalis, and the book series Studies in Universal Logic, Birkhäuser, Basel, Switzerland
- 2012, Publication of the book Universal Logic: An Anthology - From Paul Hertz to Dov Gabbay [6]
- 2013, Launch of the project of an Encyclopedia of Logic, College Publications, London, UK, joined project with IEP Internet Encyclopedia of Philosophy, USA
- 2014, Creation of the first logic prize: Newton da Costa Logic Prize in Brazil
- 2018, First World Logic Prizes Contest, Vichy, France
- 2019, Creation of the World Logic Day
The Universal Logic Project is promoting the unification of logic through a general theory of logical systems, but also gathering the diversity of all logicians and promoting the many applications of logic and its transdisciplinary character (see [9,11]). The Logica Universalis Association (Fig. 3) is helping to create logic prizes, logic associations, logic events around the world.

2. Organization of the 2nd World Logic Prizes Contest

The 2nd World Logic Prizes Contest was projected for April 2021, as was the 7th UNILOG, but it was delayed of by one year due to the COVID-19 pandemic, and it will take place in April 2022 (Fig. 4). This facilitated the organization allowing to reach the number of 15 prizes.

Since we had more time, we decided to publish this special issue before the event, so that the jury (soon to be formed), as well as all participants of UNILOG’2022 and anybody, can see the final versions of the papers before the contest. Here is the list:

- Zvonimir Šikic, Georgius Benignus Logic Prize (Croatia), “Kneale’s natural deductions as a notational variant of Beth’s tableaus” [23].
- Bama Srinivasan and Ranjani Parthasarath, Bimal Krishna Matilal Logic Prize (India) “A formalism to specify unambiguous instructions inspired by Mimansa in computational settings” [24].
- Vor Aranda Utrero, Spanish Prize of Logic (Spain), “Completeness: from Husserl to Carnap” [25].
- Sérgio Marcelino, Amilcar Sernadas Logic Prize (Portugal), “An unexpected Boolean connective” [18].
• Ievgen Ivanov, *Ukrainian Logic Society Prize* (Ukraine), “On induction principles for partial orders” [16].
• Rafael Félix Mora Ramirez, *Francisco Miró Quesada Cantuarias Logic Prize* (Peru), “A pragmatic dissolution of Curry’s paradox” [20].
• Yana Rumenova Georgieva, *Ivan Soskov Logic Prize* (Bulgaria), “Modal definability: two commuting equivalence relations” [15].
• Tomasz Jarmuzek and Mateusz Klonowski, *Alfred Tarski Logic Prize* (Poland), “Tableaux for logics of content relationship and set-assignment semantics” [17].
• Alexandra Pavlova, *Vasiliev Logic Prize* (Russia), “From truth degree comparison games to Sequents-of-relations calculi for Gödel Logic” [21].
• Costas Dimitracopoulos, *Aristotle Logic Prize* (Greece), “Analytics vs. Stoicheia” [13].
• Ioachim Drugus, *Moldovan Logic Prize* (Moldova), “A universal algebraic set theory built on mereology with applications” [14].
• Guillaume Aucher, *Louis Couturat Logic Prize* (France), “On the Universality of Atomic and Molecular Logics via Protologics” [1].
• Šejla Dautovic, *Serbian Prize of Logic* (Serbia), “A probabilistic logic between LPP1 and LPP2” [12].
• María del Rosario Martz-Ordaz, *Mexican Academy of Logic (AML) Prize of Logic* (Mexico), “A methodological shift in favor of (some) paraconsistency in the sciences” [19].
• Ciro Russo, *Newton da Costa Logic Prize* (Brazil), “Coproduct and amalgamation of deductive systems by means of ordered algebras” [22].
In the following above map (Fig. 5), we can see the good geographical repartition of the prizes on earth. We have in particular prizes in 4 continents: South-America, North-America, Europe, Asia.

As in the first edition, each contestant will have 30mn to present his/her work, including discussion. The jury will then take a decision in particular using the following evaluation form:

EVALUATION FORM—2nd WORLD LOGIC PRIZES CONTEST
The following subjects should be ranked from 1 to 10 (High 9–10, Good 7–8, Average 5–6, Poor 3–4, Low 0–2), followed by some comments:

- Originality and novelty
- Technical soundness
- Quality of the style of the paper
- Quality of presentation of the talk
- Relevance for the development of logic
- Overall judgment
- Degree of expertise of the referee for this paper

Besides the publication of the paper in *Logic Universalis* and the honorific *Universal Logic Prize*, it will be offered to the winner of the contest:

- A 500 euros Birkhäuser (Springer Nature) voucher
- Participation as a keynote speaker to the next UNILOG (including travel and housing)

3. The Future of the World Logic Prizes Contest

The 3rd World Logic Prizes Contest will take place at the 8th World Congress and School on Universal Logic which shall in principle take place in 2025. We
hope to have more logic prizes at this time, at least 20. This will be managed in particular by the creation of new logical associations. The perspective is to extend the logic map to two more continents: Africa and Oceania.

Another important point is that the concept of logic prizes can be exported to any other science. This concept is based on the following ideas:

- The prize is local, corresponding to a given country
- Anybody working in the country can submit a paper for the prize, independently in particular of age and nationality
- Members of the jury are working in the country
- The winner of a prize of a given country takes part to a world prizes contest on the field with the winners of prizes in this field of other countries

The idea is to promote interaction of all people working in a given field in a given country. This is important considering the general tendency of overspecialization and globalization [7]. Then we will have world prizes contest in any field, for example physics (Fig. 6).

The fact that logic was the first field to promote such prizes is interesting. Logic serves as a guide. Logic is indeed not a field like any other field, if we consider on the one hand that human beings are characterized as logical animal (rational animals) and on the other hand that logic is really transdisciplinary (see [8,11]).

In the future, we can even think of a general World Scientific Prizes Contest gathering the winners of all world prizes contests of different fields (Fig. 7). This can be organized following the same bottom-up/local-global strategy. The idea would be that each country organizes among its winners of a world prizes contest of each field, a National Scientific Prizes Contest. The national scientific winner will then take part to the World Scientific Prizes Contest.
This would reinforce even more the interaction among scientists and the transciplinarity of science.

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**References**

[1] Aucher, G.: On the universality of atomic and molecular logics via protologics. Logica Universalis, Issue 1–3, Vol. 16 (2022)

[2] Beziau, J.-Y.: Universal logic. In: Childers, T., Majer, O. (eds.) Logica’94—Proceedings of the 8th International Symposium, Prague, pp. 73–93 (1994)

[3] Beziau, J.-Y.: Recherches sur la Logique Universelle. Ph.D. Thesis, Department of Mathematics, University Denis Diderot, Paris 7, Paris (1995)

[4] Beziau, J.-Y.: From paraconsistent to universal logic. Sorites 12, 266–277 (2001)

[5] Beziau, J.-Y. (ed.): Logica Universalis—Towards a General Theory of Logic, 2 nd edition 2007. Birkhäuser, Basel (2007)

[6] Beziau, J.-Y. (ed.): Universal Logic: An Anthology—From Paul Hertz to Dov Gabbay. Birkhäuser, Basel (2012)

[7] Beziau, J.-Y.: Les universités face globalisation: vers une université mondiale? In: Naïshtat, F. (ed.) Journée de l’Unesco 2004, vol. 10, pp. 207–211. Unesco, Paris (2006)

[8] Beziau, J.-Y.: Being aware of rational animals. In: Dodig-Crnkovic, G., Giovagnoli, R. (eds.) Representation and Reality: Humans, Animals and Machines, pp. 319–331. Springer International Publishing Switzerland, Cham (2017)

[9] Beziau, J.-Y.: Universal logic: evolution of a project. Log. Univers. 12, 1–8 (2018)

[10] Beziau, J.-Y.: Logic Prizes et Cætera. Log. Univers. 12, 271–296 (2018)
[11] Beziau, J.-Y.: Is logic exceptional? In: Beziau, J.-Y., Desclés, J.-P., Moktefi, A., Pascu, A.C. (eds.) Logic in Question—Talks from the Annual Sorbonne Logic Workshop (2011–2019). Birkhäuser, Basel (2022)

[12] Dautovic, Š.: A Probabilistic Logic Between LPP1 and LPP2, Logica Universalis, Issue 1–3, vol. 16 (2022)

[13] Dimitracopoulos, C.: Analytics vs. Stoicheia, Logica Universalis, Issue 1–3, vol. 16 (2022)

[14] Drugus, I.: A universal algebraic set theory built on mereology with applications, Logica Universalis, Issue 1–3, vol. 16 (2022)

[15] Georgieva, Y.R.: Modal definability: two commuting equivalence relations, Logica Universalis, Issue 1–3, vol. 16 (2022)

[16] Ivanov, I.: On induction principles for partial orders, Logica Universalis, Issue 1–3, vol. 16 (2022)

[17] Jarmuzek, T., Klonowski, M.: Tableaux for logics of content relationship and set-assignment semantics, Logica Universalis, Issue 1–3, vol. 16 (2022)

[18] Marcelino, S.: An unexpected Boolean connective, Logica Universalis, Issue 1–3, vol. 16 (2022)

[19] Martz-Ordaz, M.: A methodological shift in favor of (some) paraconsistency in the sciences, Logica Universalis, Issue 1–3, vol. 16 (2022)

[20] Mora Ramirez, R.F.: A pragmatic dissolution of Curry’s paradox, Logica Universalis, Issue 1–3, vol. 16 (2022)

[21] Pavlova, A.: From truth degree comparison Games to Sequents-of-relations calculi for Gödel Logic, Logica Universalis, Issue 1–3, vol. 16 (2022)

[22] Russo, C.: “Coproduct and amalgamation of deductive systems by means of ordered algebras.” Logica Universalis, Issue 1–3, vol. 16 (2022)

[23] Šikic, Z.: Kneale’s natural deductions as a notational variant of Beth’s tableaus, Logica Universalis, Issue 1–3, vol. 16 (2022)

[24] Srinivasan, B., Parthasarath, R.: A formalism to specify unambiguous instructions inspired by Mimamsa in computational settings, Logica Universalis, Issue 1–3, vol. 16 (2022)

[25] Utrero, V.A.: Completeness: from Husserl to Carnap, Logica Universalis, Issue 1–3, vol. 16 (2022)

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