

## Selecting of Published Works

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### ABSTRACT

To overcome the shortcomings in fundamental science, it is proposed to create a system for selecting published scientific papers on the ResearchGate portal. The first version of such a system for evaluating scientific papers is discussed, in which the final assessment is based on a statistical indicator. Another version of such a system is proposed, in which the selection of scientific papers is made according to their content.

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### Introduction

The shortcomings of contemporary fundamental science are now being discussed by many researchers, including myself [1,2]. In this regard, ways to overcome these shortcomings are being sought. One of the encouraging ways was proposed by Indian researcher Gurcharn Singh Sandhu September 24, 2024 [3]. I will cite some of his thoughts with some rearrangements and contractions, so I will not put them in quotation marks.

ResearchGate was founded with a mission to connect the world of science and make research open to all. With current ResearchGate membership of over 25 million, that mission appears to have been achieved.

But there are two major problems still pending. At present, despite hundreds of thousands of advanced research papers being published every year, there is hardly any perceptible advancement in Fundamental Physics. One reason is that even if a few researchers make valuable research contributions to the development of fundamental physics, we cannot distinguish their voices from the background noise. Second reason is that under the current system of research funding, research work that tends to be critical of the currently accepted viewpoint, is never encouraged.

Hence, to put the Fundamental Physics research back on the right track, we need to create a centralized public review and evaluation system for all fundamental research papers. Through such evaluation system we need to bring out and show-case high quality research papers uploaded on ResearchGate. It is therefore proposed that we get together to create an evaluation and grading system for all research papers within the available ResearchGate (RG) environment.

Let us consider the evaluation system proposed by G.S. Sandhu.

### Evaluation System for Research Papers on ResearchGate

The proposed evaluation system will be managed and operated by a team of dedicated researchers who will volunteer to join this noble endeavor. This management group, called the RG Research Panel, may consist of approximately five RG members and may be registered as such on ResearchGate. The proposed review and evaluation system will operate in three distinct parts or streams:

#### Part 1 – The Proposal Stream

#### Part 2 – The Evaluation Stream

#### Part 3 – The Data Compilation Stream.

In **Part 1 – The Proposal Stream**, the RG members will post the works that they consider worthy of further evaluation. To select worthy works, a number of criteria are proposed, which need to be further improved and supplemented. From this stream, other RG members will be proposed works for their evaluation on a 10-point scale.

In **Part 2 – The Evaluation Stream**, the works will be posted for evaluation by the reviewers. The evaluation will also be carried out according to the criteria that will be further improved and supplemented. Each work will be evaluated by several reviewers.

In **Part 3 – The Data Compilation Stream**, the evaluated works will be posted. Each work will be assigned a score equal to the average of all its evaluations by the reviewers. And all the evaluated works will be ordered according to their evaluations.

This is a brief description of the evaluation system proposed by G.S.Sandhu. You can find more details in [3]. There are also a number of G.S.Sandhu's ideas that led him to the need to create this system. There are also some discussions of it here.

I was very interested in G.S. Sandhu's proposal. Such a system is necessary. It will reduce the number of papers that a researcher needs to read in order to keep up with the latest scientific achievements. This system will also reduce the release of sensational and extravagant hypotheses into the media, which will turn out to be erroneous in a few days.

However, after a few days, I began to have doubts about the principles of this system. It depersonalized the scientific work, since only its DOI was mentioned, the names of the reviewers were not included, and the work was characterized only by a numerical assessment. Such an assessment system can be called statistical. It seems to me that in order to select worthy scientific works, it is necessary to create a meaningful assessment system, not a statistical one.

### Selection System for Research Papers on ResearchGate

I put myself in the shoes of a Reviewer and asked myself: what do I need to decide whether to review an article for a positive assessment? After all, we are supposed to select only good research papers, and we do not select bad papers.

To do this, I need to know the authors of the research work, its title, its summary, who recommended it and their recommendation. Based on this information, I can decide whether this research work is good or bad.

Therefore, in Appendix 1, I am attaching the form of two examples of research works in which they should be presented in the **Proposal Stream**. The first example is an article, and the second is a book, and not in English. The second example shows how research works other languages can be presented.

I propose to consider research papers not only with DOI, not only those contained in RG, but also all other research works that RG members deem necessary to recommend for evaluation. Only two requirements must be met: 1) the work was published; 2) the work is available on the Internet.

In the future, based on this information (Appendix 1), the Automated System RG (AS RG) will offer these research papers to RG members for review. Therefore, the members of the Research Panel of RG will be exempted from this obligation.

As examples (Appendix 1), I have provided my own papers, since I have them at hand. One can provide examples of other papers.

I thought about the procedure for placing the evaluated research works in the second stream, the **Evaluated Stream**. It seemed to me that it was possible not to create a third stream of finally selected papers. A research paper from the second stream is being placed in it based on the summation of reviews on it. This principle of the summation of reviews is in effect now, and it has led to false science. I foresee that in this case, authors and their supporters will initiate dozens of very good reviews, as a result of which very bad works will be rated as very good (I note that the practice of initializing good personal articles exists in Wikipedia).

I propose that the selected work posted by the Reviewer be considered as finally selected. There may be several recommendations for it in the first stream. The names of the recommenders and the reviewer's name are the guarantor of an honest choice.

One of the reasons for the shortcomings of contemporary fundamental science is the anonymity of the reviewer. Society should allow the Reviewer to decide the fate of scientific work. But the actions of the Reviewer should be known to society. Therefore, each RG members has the right to comment on the review (not the article, but the review). In Appendix 2, I place example 1 in the form in which it should be posted in the **Evaluated Stream**.

After the Review, there are comments from RG members. After the Reviewer places the research work in the **Evaluated Stream**, it will be removed from the **Proposal Stream**. This operation can be performed by AS RG.

Proposals, reviews and comments will be made according to criteria that will be further improved and supplemented. The automated RG system will monitor that these criteria are not violated. The names of the authors of proposals, reviews and comments will forever remain with the scientific work selected as worthy one. Therefore, these authors will be proud of their work. They will approach the evaluation of scientific works with great responsibility, and will not allow themselves to have a bad or erroneous work included in the selected works.

Not every RG member can be a reviewer. There were hundreds of reviewers along my way, and only 10% of them could be used to select good works. I have written about one of these reviewers in [4].

All contemporary fundamental Mainstream science, not only physics, is presumptual science, since it is built on hypotheses. Therefore, it is necessary to introduce the Selection System for all science. Let's divide it into the following areas

1) Mechanics; 2) Physics; 3) Chemistry; 4) Biology; 5) Geology; 6) Astronomy; 7) Medicine; 8) Space sciences; 9) Other sciences.

Mechanics studies the motion and interaction of bodies. Therefore, we include works on Electrodynamics, Special and General Relativity in Mechanics. As one can see, the physical works mentioned in the RG discussions will be placed by those who propose to evaluate them in the areas 1, 2, 6, 8 and 9.

Each of the 9 areas should have Streams of **Proposal** and **Evaluated** works.

### Conclusion

The **Evaluation System** conceived by G.S.Sandhu is a grand system, both in its functioning and in its significance for human society. For the first time, Humanity will receive a tool that will constantly improve science and eliminate its shortcomings. But in order for this tool to start working, all researchers need to get involved in its creation and functioning. At this stage, it is necessary to consider several approaches to its creation. Depending on the approach, such a system can differ significantly. These differences allow us to see the characteristics of the system that will need to be implemented.

### References

1. Smulsky JJ (2023) International Scientific Tribunal. Ann Rev Resear 10: 555786.
2. Smulsky JJ (2024) Disadvantages of Science and Overcoming them. Ann Rev Resear 11: 555810.
3. Sandhu GS (2023) Fundamental Physics is stuck in conceptual crisis and reached a dead end. What exactly is wrong with Fundamental Physics Research? Available at: [https://www.researchgate.net/post/Fundamental\\_Physics\\_is\\_stuck\\_in\\_conceptual\\_crisis\\_and\\_reached\\_a\\_dead\\_end\\_What\\_exactly\\_is\\_wrong\\_with\\_Fundamental\\_Physics\\_Research](https://www.researchgate.net/post/Fundamental_Physics_is_stuck_in_conceptual_crisis_and_reached_a_dead_end_What_exactly_is_wrong_with_Fundamental_Physics_Research).
4. Smulsky JJ (2009) In the Memory of Robert J. Heaston. Institute of Earth's Cryosphere SB RAS, Tyumen. Available at: <https://www.ikz.ru/~smulski/Papers/Heaston05.pdf>.

## Appendix 1

### Part 1 – The Proposal Stream- Research Papers Proposed for Evaluation.

#### Example 1

Smulsky, J.J. (2024) Development of Multilayer Models of Globular Star Clusters and Study of Their Evolution. Journal of Modern Physics, 15, 1246-1300. DOI: 10.4236/jmp.2024.158051. [http://wgalactica.ru/smull/smulski/Papers/DMMGSCE2\\_7JP.pdf](http://wgalactica.ru/smull/smulski/Papers/DMMGSCE2_7JP.pdf).

#### Abstract

Usually, models of globular star clusters are created by analyzing their luminosity and other observation parameters. The goal of this work is to create stable models of globular clusters based on the laws of mechanics. It is necessary to set the coordinates, velocities and masses of the stars so that as a result of their gravitational interaction the globular cluster is not destroyed. This is not an easy task, and it has been solved in this paper. Using an exact solution of the axisymmetric gravitational interaction of N-bodies, single-layer spherical structures were created. They are combined into multilayer models of globular clusters. An algorithm and a program for their creation is described. As a result of solving the problem of gravitational interaction of N bodies, evolution of 5-, 10-, and 15-layer structures was studied. During the inter-body interaction, there proceeds a transition from the initial specially organized structure to a structure with bodies, uniformly distributed in space. The number of inter-body collisions decreases, and the globular cluster model passes into the stable form of its existence. The collisions of bodies and the acquisition of rotational motion and thermal energy by them are considered. As a result of the passage to scaled dimensions, the results were recalculated to the conditions of globular star clusters. The periods of rotation and the temperatures of merged stars are calculated. Attention is paid to a decreased central-body mass in the analyzed models of globular star clusters.

**Keywords:** N-Body Problem, Solution, Globular Star Clusters, Properties

#### Recommendations by

**David L. Scott:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

**Dr. Joseph M. Scott:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

**John D. Scott:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

#### Example 2

Smulsky J.J. (2019) The Upcoming tasks of Fundamental Science. M.: Sputnik+ Publishing House, 134 p. ISBN 978-5-9973-5228-8. (In Russian). <https://www.ikz.ru/~smulski/Papers/InfPrZaFN.pdf> – book's information in English. The book in pdf-format in Russian can be downloaded here: [https://www.ikz.ru/~smulski/Papers/PrZadFuNa02\\_2.pdf](https://www.ikz.ru/~smulski/Papers/PrZadFuNa02_2.pdf).

The monograph uses a non-hypothesis method of studying the surrounding world. The knowledge about it is based on mechanics: the science of motion and interaction of bodies. The main provisions of mechanics are considered. The structure of the world and its existence are due to gravitational interactions. The main laws and tasks of these interactions are considered. Such space objects as planetary systems, star clusters and galaxies exist due to the interaction of N bodies. Exact solutions to the

N-body problem, as well as the results of its numerical solution, are considered. The structure of the microworld and its existence are due to electromagnetic interactions. A new law for the force of interaction of two charged particles moving relative to each other is substantiated. Gravitational and electromagnetic interactions allow us to know the real world. It differs from the contemporary scientific picture of the world, which is built on hypotheses. On the same basis, long-term fluctuations in the Earth's climate are considered. It is shown that theoretical results determine the known changes in the paleoclimate. All the achievements of society are obtained by its labor. Man has acquired power over the entire living world, so he is responsible for its existence and development. These provisions present the further path of development of society. According to the text of the monograph and at the end, the upcoming tasks of fundamental science are formulated. The book is intended for a wide range of readers of different specialties and different ages.

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**Dr. David L. Smith:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

**Joseph M. Smith:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

**Dr. John L. Smith:** A rationale for the recommendation is given: why this work should be included in the Proposal Stream.

### Part 2 – The Evaluated Stream

#### Evaluated Papers.

##### Example 1

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### Comments on Review

**Leon L. Smith**

I agree with the Reviewer's decision because...

**Dr. Invar B. Smith**

I do not agree with the Reviewer's decision. The article contains a gross error that invalidates all its results...

### Review

**Prof., Dr. Victor B. Pomeranchuk**

The Review should have three parts.

1. A brief summary of the work as presented by the Reviewer (but not the authors).
2. What is useful in the work?
3. Noticed shortcomings and wishes to the authors in their future work.

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