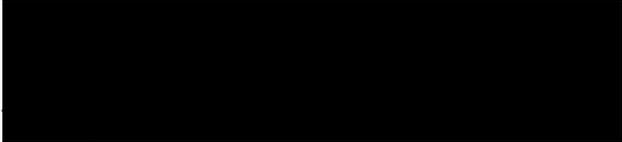




U.S. Citizenship
and Immigration
Services



FILE: EAC 02 195 50774 Office: VERMONT SERVICE CENTER Date:

IN RE: Petitioner:
Beneficiary:



DEC 27 2004

PETITION: Immigrant Petition for Alien Worker as an Alien of Extraordinary Ability Pursuant to Section 203(b)(1)(A) of the Immigration and Nationality Act, 8 U.S.C. § 1153(b)(1)(A)

ON BEHALF OF PETITIONER:

SELF-REPRESENTED

PUBLIC COPY

INSTRUCTIONS:

This is the decision of the Administrative Appeals Office in your case. All documents have been returned to the office that originally decided your case. Any further inquiry must be made to that office.

Maiperson

Robert P. Wiemann, Director
Administrative Appeals Office

identifying data deleted to
prevent clearly unwarranted
invasion of personal privacy

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DISCUSSION: The employment-based immigrant visa petition was denied by the Director, Vermont Service Center, and is now before the Administrative Appeals Office on appeal. The appeal will be sustained and the petition will be approved.

The petitioner seeks classification as an employment-based immigrant pursuant to section 203(b)(1)(A) of the Immigration and Nationality Act (the Act), 8 U.S.C. § 1153(b)(1)(A), as an alien of extraordinary ability in the sciences. The director determined the petitioner had not established that he was eligible for classification as an alien of extraordinary ability.

Section 203(b) of the Act states, in pertinent part, that:

(1) Priority Workers. -- Visas shall first be made available . . . to qualified immigrants who are aliens described in any of the following subparagraphs (A) through (C):

(A) Aliens with Extraordinary Ability. -- An alien is described in this subparagraph if --

(i) the alien has extraordinary ability in the sciences, arts, education, business, or athletics which has been demonstrated by sustained national or international acclaim and whose achievements have been recognized in the field through extensive documentation,

(ii) the alien seeks to enter the United States to continue work in the area of extraordinary ability, and

(iii) the alien's entry to the United States will substantially benefit prospectively the United States.

As used in this section, the term "extraordinary ability" means a level of expertise indicating that the individual is one of that small percentage who have risen to the very top of the field of endeavor. 8 C.F.R. § 204.5(h)(2). The specific requirements for supporting documents to establish that an alien has sustained national or international acclaim and recognition in his or her field of expertise are set forth in the regulation at 8 C.F.R. § 204.5(h)(3). The relevant criteria will be addressed below. It should be reiterated, however, that the petitioner must show that he has earned sustained national or international acclaim at the very top level.

This petition, filed on May 18, 2002, seeks to classify the petitioner as an alien with extraordinary ability as a mathematician. The petitioner holds the foreign equivalent of a Ph.D. degree in Physics and Mathematics from Belarusian State University (1998). At the time of filing, the petitioner was pursuing a second Ph.D. in Operations Research at Rutgers University and working as a "Teaching Assistant" at the Rutgers Center for Operations Research.

The director's decision stated: "You have classified yourself as one of the top 2-5% of mathematicians in Belarus. Unfortunately, to be of E1-1 status you must be one of the top percentages in the world, not just in Belarus." We withdraw this erroneous statement from the director's decision. Clearly, the statute and regulations allow for "national" as well as international acclaim. Therefore, if the evidence were to demonstrate

that the petitioner has sustained national acclaim as one of that small percentage who has risen to the very top of his field of endeavor in Belarus, then he would be eligible for classification as an alien of extraordinary ability.

The regulation at 8 C.F.R. § 204.5(h)(3) indicates that an alien can establish sustained national or international acclaim through evidence of a one-time achievement (that is, a major, international recognized award). Barring the alien's receipt of such an award, the regulation outlines ten criteria, at least three of which must be satisfied for an alien to establish the sustained acclaim necessary to qualify as an alien of extraordinary ability. We find that the petitioner's evidence satisfies the following three criteria.

Evidence of the alien's participation, either individually or on a panel, as a judge of the work of others in the same or an allied field of specification for which classification is sought.

The director's decision failed to address the evidence presented under this criterion.

The petitioner submitted a letter from Dr. [REDACTED] Editor-in-Chief, *Discrete Mathematics* and *Discrete Applied Mathematics*, which states:

Within the last three years, [the petitioner] refereed and evaluated 37 submitted manuscripts to our journals, and helped me reach decisions on their possible publication. The very high number of papers the publication of which was decided on the basis of his evaluations, reflects clearly the importance of his opinion for our acceptance/rejections decisions.

The petitioner also submitted a letter from Professor [REDACTED] Managing Editor, *Journal of Graph Theory*, stating: "This letter is to verify that [the petitioner] has on many occasions served the *Journal of Graph Theory* as a referee for our technical scientific publications."

In addition, the petitioner submitted a letter from [REDACTED] Executive Editor, *Mathematical Reviews*, stating: "[The petitioner] has been a reviewer for *Mathematical Reviews* since July of 1993. In that time, [the petitioner] has written 6 reviews for us. *Mathematical Reviews* relies on its reviewers for comprehensive and critical evaluation of the world's mathematical literature." The petitioner's submission included all six of the published reviews authored by the petitioner.

In response to the director's request for evidence, the petitioner submitted further evidence showing that he has reviewed additional manuscripts for *Discussiones Mathematicae Graph Theory*, the *Australasian Journal of Combinatorics*, and *International Transactions in Operational Research*.

We note here that peer review of manuscripts is a routine element of the process by which articles are selected for publication in scholarly journals. Occasional participation in the peer review process does not automatically demonstrate that an alien researcher has earned sustained national or international acclaim at the very top of his field. It is noted in this case, however, that the petitioner has reviewed a substantial number of manuscripts for at least seven different journals. Therefore, we find that the evidence presented is adequate to satisfy this criterion.

Evidence of the alien's original scientific, scholarly, artistic, athletic, or business-related contributions of major significance in the field.

The director's decision failed to consider the evidence presented under this criterion. The decision stated: "...there are no letters from major universities, institutions and other math related groups that state that [the petitioner is] one of the top mathematicians in the world." This statement is withdrawn from the director's decision.¹ The petitioner provided numerous witness letters in support of the petition. We cite representative examples here.

Dr. [REDACTED] Professor of Mathematics, Tampere University of Technology, Finland, states that "discrete mathematics is the area of mathematics that is most directly relevant to information technology and operations research, including for example error-correcting codes, encryption, and data compression." Dr. [REDACTED] further states:

In my opinion [the petitioner] is presently the top expert in the world in the algebra of Boolean functions (also known as switching functions, truth functions, or formulas of propositional logic). The practical importance of Boolean functions resides mainly in their ability to encode a large variety of apparently different computational problems.... In my opinion, the deepest and most difficult mathematical result in Boolean function theory is Emil Post's complete classification of clones (classes of functions closed under composition), announced in 1920 and published in 1941. It is typical of that result's complexity that expository mathematical monographs devoted to the subject would recoil from the task of presenting a proof of the classification, e.g. Pippenger's authoritative 250-page "Theories of Computability" (Cambridge University Press 1997) calls the proof "too lengthy to present here," although a full chapter is spent in the explanation of its importance. In a groundbreaking research report in 2000 at Rutgers University, [the petitioner] has developed an approach to Boolean clone theory that allows new insights into the Post classification and yields a rigorous and complete proof of Post's fundamental result in less than twenty pages of mathematical derivation. This powerful paper is in my opinion the most significant contribution to Boolean function theory since the original contributions of Emil Post.

Professor [REDACTED] Department of Computer Science, University of London, United Kingdom, states:

The petitioner's papers already form a significant contribution to several areas of graph theory. He managed to resolve a number of open questions that other mathematicians were not able to solve, some of those problems are rather old.

In particular [the petitioner] characterized all hereditary subclasses of line graphs. His result subsumed previous results obtained in dozens of papers written by such well-known American scholars as L. Beineke, F. Harary, S.T. Hedetniemi and R. Hemminger.

¹ Once again, the director imposes the requirement that the petitioner make a showing that he is "one of the top mathematicians in the world." As noted previously, an alien can demonstrate eligibility under this classification by demonstrating that he has sustained "national" acclaim at the very top of his field.

The petitioner also proved a characterization of the whole class of well-covered graphs using a new hereditary system of "costable subgraphs." Total number of particular results on well-covered graphs is more than 100, and many of them follow directly from [the petitioner's] characterization.

In 2000, [the petitioner] characterized closed classes of Boolean functions in terms of forbidden subfunctions, thus, giving a simple proof of Post's classical result on clones Boolean functions.

Dr. Peter Mihok, Head, Department of Applied Mathematics and Computer Science, Technical University of Kosice, Slovakia, credits the petitioner with the following:

- [The petitioner] solved very well known and difficult open problem of the characterization of domination perfect graphs and upper domination perfect graphs.
- He developed general methods for characterization of hereditary classes in terms of minimal forbidden subgraphs....
- He characterized closed classes of Boolean functions in terms of forbidden subfunctions and thus giving a simple proof of Post's classical result on clones of Boolean functions.
- He has solved problems in domination theory, theory of graphic sequences and matroidal decompositions of graphs.

Dr. Uri Peled, Professor, Department of Mathematics, Statistics, and Computer Science, University of Illinois at Chicago, states:

[The petitioner] has a very large number of outstanding results in graph theory, an important branch of discrete mathematics with many applications in computer science and operations research. One of his research lines is hereditary classes of graphs, in which he has spectacular results, many of which solve long-standing problems. He also has a truly amazing rate of producing new results....

Dr. E.J. Cockayne, Professor, Department of Mathematics and Statistics, University of Victoria, Canada, states:

In my own field of domination and irredundance in graphs, [the petitioner] has solved difficult problems and settled several long-standing conjectures which were made by other top scientists in the area. Thus his work has made significant impact on the research of the international group (including myself) who struggle with domination and irredundance.

[The petitioner] has several patents for inventions concerning digital computing devices. He is a co-author of one graph theory book....

Dr. Andreas Brandstadt, Professor, Department of Computer Science, University of Rostock, Germany, states:

In his papers, [the petitioner] solved a number of open problems by famous researchers such as R. Gould, F. Harary, S.B. Rao, S. Srikhande, B. Reed, L. Lesniak, B. Zelinka and others; these problems resisted for a long time all the attacks of several researchers trying to solve them. The most well-known is perhaps a conjecture by Woodall on the binding number of a graph which was partially resolved by [the petitioner]....

Moreover and perhaps, most importantly, [the petitioner] developed new general methods in several fields of research which enable to treat [sic] research topics in full generality where only particular cases were successfully investigated before. For characterizing hereditary classes of graphs in terms of forbidden subgraphs, this establishes a [sic] essentially higher level of investigation in the field of research.

Professor David Sumner, Department of Mathematics, University of South Carolina, states that the petitioner "is a world-class graph theorist who is highly respected by the international mathematics community." Dr. Sumner adds: "[The petitioner] has solved many outstanding problems and written papers on a large variety of topics in the theory of graphs."

Professor Michael Henning, School of Mathematics, Statistics, and Information Technology, University of Natal, South Africa, states that the petitioner "has made a significant contribution to several areas of combinatorial research and in particular graph theory research."

Professor Alexander Zelikovsky, Department of Computer Science, Georgia State University, asserts that the petitioner "created a whole new branch of experimental graph theory which allows him and his followers to prove and disprove long-standing graph theoretical conjectures."

Professor Alexandr Kostochka, Department of Mathematics, University of Illinois, Urbana, credits the petitioner with "developing general methods for characterization of hereditary classes of discrete objects, mainly of graphs, but also of set families, bihypergraphs, and Boolean functions."

The record contains additional letters from mathematicians in Belarus and Germany repeating the assertions of the prior witnesses. We find that the record adequately demonstrates the petitioner's contributions are important not only to the research institutions where he has worked, but throughout the greater field. Scientific experts from throughout the world have acknowledged the value of the petitioner's work and its significance to the mathematics community. Therefore, we find that the petitioner's evidence satisfies this criterion.

Evidence of the alien's authorship of scholarly articles in the field, in professional or major trade publications or other major media.

The petitioner submitted evidence of his authorship of numerous articles appearing in publications such as *Discrete Mathematics*, *Journal of Graph Theory*, *Ars Combinatoria*, *Discrete Applied Mathematics*, *Mathematical Notes*, and *Combinatorics and Graph Theory*. The petitioner also provided evidence indicating that he coauthored a book on graph theory, entitled Exercises in Graph Theory. The petitioner also submitted a list of journal rankings printed from Columbia University's website indicating that *Discrete Mathematics*,

Journal of Graph Theory, Ars Combinatoria, and Discrete Applied Mathematics rank numbers 1, 3, 5, and 6, respectively, among journals in the petitioner's field. On appeal, the petitioner submits additional data showing that the number of publications he has authored far exceeds that of almost all others in his field at the national and international level. While the impact of the petitioner's articles is of greater relevance than the amount of publications produced, the petitioner offers credible data showing that his level of productivity significantly distinguishes him from most other graph theory authors.

In this case, we find that the petitioner has satisfied three of the regulatory criteria required for classification as an alien of extraordinary ability. Pursuant to the statute and regulations as they are currently constituted, the petitioner qualifies for the classification sought.

In review, while not all of the evidence presented in this matter carries the weight imputed to it by the petitioner, the totality of the evidence establishes an overall pattern of sustained national and international acclaim and extraordinary ability in the field of mathematics. Therefore, the petitioner has overcome the stated grounds for denial and thereby established eligibility for the benefits sought under section 203 of the Act.

The burden of proof in visa petition proceedings remains entirely with the petitioner. Section 291 of the Act, 8 U.S.C. § 1361. The petitioner has sustained that burden. Accordingly, the decision of the director denying the petition will be withdrawn and the petition will be approved.

ORDER: The appeal is sustained and the petition is approved.