Iranian
Mathematical Society

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Dear President of Springer,

I am the President of the Iranian Mathematical Society and it is my pleasure to contact you. To the best of my knowledge, Springer holds a distinguished and pivotal position in the realm of publishers, renowned for its endeavors in pushing the boundaries of knowledge and providing scientific support to researchers. I kindly request the opportunity to introduce a comprehensive outline of the "Student Mathematical Competition" and its execution procedures along with the request submitted by the IMS.

The endorsement of the forthcoming proposal pertaining to Springer's backing of the Student Mathematical Competition may be viewed as a further stride by Springer towards championing the advancement of science through mathematical societies and facilitating a deeper comprehension of Springer's impactful undertakings in recognizing potential mathematicians.

The IMS, whose Bulletin is published by Springer, has organized the Annual Student Mathematical Competition, a contest designed for undergraduate students majoring in mathematical sciences, although students from other fields are also welcome to participate. This competition has been hosted by Iranian universities since 1973, spanning five decades and encompassing a total of 45 successful competitions. Over the years, this prestigious competition has attracted most of Iran's talented young mathematicians. Renowned figures like the late **Professor Maryam Mirzakhani** (who won the gold medal twice in our competitions) and **Professor Caucher Birkar** (who won the gold medal twice in our competitions), both of whom are **Fields medal winners**, and many other exceptional Iranian mathematicians who now hold professorships at esteemed universities worldwide have also emerged as winners from this competition. Let me say that I, an editor-in-chief of three journals published by Springer, was also a gold medal winner in this competition about 35 years ago.

➢ **Outline and Procedures of the Competition**

Annually, each university in Iran has the opportunity to nominate a team, composed of five undergraduate students and led by a faculty member (team leader) to partake in this competition.

The competition's scientific committee, comprised of seven accomplished mathematicians chosen by the IMS, is responsible for preparing and composing a set of twenty-four problems spanning the realms of analysis, algebra, a, and combinations. These problems are categorized into four levels and may encompass a range of topics, including calculus, complex functions, linear algebra, and probability typically taught at the undergraduate level. I have enclosed the problems from the 45th competition for your reference (please feel free to share them with others). Following, I've included a link to the book containing problems and solutions of the Iranian Mathematics Competitions 1973-2007:
https://link.springer.com/book/10.1007/978-93-86279-48-4
Team leaders together have the option to select half of the questions, which are administered over two days, with each day featuring six problems. Subsequently, a team consisting of twelve mathematicians or Ph.D. students having substantial experience in this competition is entrusted with grading the responses. Each

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response is subjected to an independent assessment by two evaluators, and in cases of divergence, a consensus is reached through consultation with the scientific committee. Provisions are also made for addressing any grievances in due time.

The competition rankings are determined both on a team and individual basis. Individual participants who get top points are awarded gold, silver, and bronze medals, while others are awarded honorary diplomas based on their earned points. These certificates, provided by the IMS carry significant professional value and can serve students well in their future careers.

Now, after about fifty years of successfully organizing this competition in Iran, the IMS has decided to internationalize it and allow universities from outside Iran to participate in this prestigious event by forming university teams. The 46th competition will be held in April 2024 at Tabriz University in the northwest of Iran with **about 150-200 participants**. The **Turkish Mathematical Society** agreed to cooperate in encouraging the universities in Turkey to participate in the 46th competition and we hope to have an exciting competition in 2024.

➢ **Proposal**

The IMS is an NGO and has no formal financial source for supporting the medalists of the competition. The IMS kindly requests Springer's sponsorship of the "Student Mathematical Competition" by providing invaluable book vouchers from the Springer/Birkhäuser publishing house for "the 10 top-ranked Gold and Silver Medal Winners" of the competition. The numbers of gold and silver medalists in the last 5 years have been:

2023: Gold medalists: 4; Silver medalists 9
2022: Gold medalists: 2; Silver medalists 6
2021: Gold medalists: 3; Silver medalists 6
2020: Gold medalists: 7; Silver medalists 8
2019: Gold medalists: 3; Silver medalists 12

We would greatly appreciate your support and are pleased to offer recognition of Springer/Birkhäuser, including its name/logo, as a sponsor on the IMS (https://fa.ims.ir/) website and in related announcements.

I anticipate receiving the possible interest of Springer at its earliest convenience. Please do not hesitate to contact me if you have any questions.

Best wishes,

Prof. Dr. Mohammad Sal Moslehian
The President of the Iran. Math. Soc.