The authors identify a kind of discrimination of hammer throw at competitions. Among others one reason is the increased risk of damage because of improvement in performance. Athletics must focus on such problems and deal with them if this event is to survive. Perhaps the biggest threat to the survival of the hammer throw is the potential loss of interest. The authors recommend three possible changes to the implement: decrease of the length of the hammer wire without altering the weight, increase of weight of the hammer metal head without altering the length and concurrent decrease of hammer wire length and increase of metal head weight. They recommend shortening the wire of the implement, lightening the head and reducing the size of the throwing circle. This combination of factors, would result in shorter distances thrown without having to change the traditional way of hammer throwing.

Despite the fact that it is a very spectacular and popular event, throwing the hammer has recently been forced to take a back seat to other events. Often it is either the first or the last event at meetings. Sometimes it is denied the right even to be held within the stadium and is sent into exile to warm-up areas or training sites - a clear case of event discrimination.

The reason for this state of affairs, of course, is that the event is dangerous. Hammer throwers are not always able to determine accurately the flight path of the implement, making its trajectory unpredictable.
With today’s world-class throwers easily hurling the implement over 80m, the hammer can do just about anything: from landing on the track to coursing through jumping areas to bouncing into the stands. Clearly, this places both fellow competitors and spectators in peril.

When throws were under 60m hammer throwing was completely safe. Despite a smaller cage, a larger sector and a larger mouth, there was less real risk of injury to athletes or spectators. But with improvements in performances the risk of damage also increased. Many experts believe that the time has come to review the rules of the event. Studies should be conducted to find out what new specifications regarding the cage, the landing sector or the hammer itself could bring about a situation in which throwing the hammer might become safe and enjoyable, again.

Clearly, the sport of athletics must focus on the problems associated with hammer throw and deal with them if this event is to survive. Perhaps the biggest threat to the survival of the hammer throw is the potential loss of interest on the part of spectators, clubs, meet organizers and athletes engendered by the current state of affairs.

One interesting aspect of track and field is the fact that spectators can simultaneously watch several ongoing events and still be able to focus on their favorite one. With hammer throwing being moved either to the beginning or the end of the competition schedule, spectators lose the option of enjoying such a spectacular event at the same time as other ones. Eventually, fewer and fewer spectators will watch hammer throw competitions, inevitably leading to reduced interest and possible extinction of the event.

Loss of interest can also arise from the fact that clubs are reluctant to provide training areas due to the dangers involved. A decrease in the number of competitors and of competitions automatically results. And who can blame the clubs? A soccer field is no longer large enough for today’s top throwers. It is rare to find a field of the size necessary for hammer throwing these days. This is certainly more than a financial problem. It is a problem that can only be resolved by those who run the sport.

Meeting organizers assume a huge responsibility when they include hammer throwing in the program. The distance, potential angles of release and possible damage to the landing sector all pose serious issues that must be addressed prior to the competition.

The athletes, themselves, are not exempt from the enjoyment-limiting features resulting from the current rules of the event. Hammer throwers experience psychological pressure when they step into the circle. They have to live with the looming menace of causing injury to bystanders or damage to the stadium itself. The huge metal cage around them, the huge metal panels and the narrow mouth of the cage all impose a depressing feeling, which can easily have a negative impact on the athlete’s competition experience. The mouth of the cage is of such a size that, even during a well-placed throw, the grip or the wire could easily touch the net. The high possibility of either not being able to throw the hammer through the mouth of the cage or just touching the netting panels creates unnecessary angst.

Summing up the above arguments, it seems appropriate to say that hammer throwing, with its present set of rules, is dangerous and does not promote its own future. All of the problems associated with these rules detract from hammer throwers performing at their best.

So, what is the solution? The popularity and legacy of the hammer throw require us to do our best to maintain it as an athletic event. For this to succeed its rules need to be changed so that the length of throws decreases significantly. Modifications to the size of the throwing circle and the dimensions of the implement itself may offer a solution to the problem.

Reducing the diameter of the throwing circle is one of the possible ways to reduce the achievable length of throws. By doing so, the number of spins is reduced, which has a direct effect on the force that sends the hammer on its way. Therefore, even if the
size and weight of the implement remain the same, the distance will become shorter. A decrease in spins by one would undoubtedly take away from the excitement and spectacle, but, at the same time, it would cause the athletes to maintain the current technique of throwing. A decrease in spins by two would probably take away even more from the excitement and it would result in considerable changes to the event.

There are three possible changes to the implement, itself, which could be introduced:

- the length of the hammer wire could be decreased without altering the weight,
- the weight of the hammer metal head could be increased without altering the length,
- the length of the hammer wire could be decreased and the weight of the metal head could be increased at the same time.

If the length of the hammer wire is reduced without altering the weight of the metal head the spin speed would increase significantly, thereby requiring a faster and more powerful throw than before to achieve the same distance. Therefore, the performance level would drop and a new type of thrower would develop, requiring, perhaps, a different body type and different training methods.

If the weight is increased without altering the length of the hammer wire the spin speed would decrease significantly. The power needed for the same throw would drop and a new type of thrower would develop, requiring, perhaps, a different body type and different training methods.

Reducing the length of the wire of the hammer and increasing the weight of the metal head at the same time offers a somewhat better solution. This combination would cause the distance of the throw to decrease while, at the same time, allowing the throwing technique and style to remain the same. The thrower would have to spin at least at the same speed under the new conditions as under the current ones. Such a combination would also enable today's throwers to remain at the top.

If the wire of the implement is shortened, the head is lightened and the throwing circle is reduced in size, we are likely to arrive at a combination of factors which allows for shorter distances without having to change the traditional way of hammer throwing. The shorter distances would make the event safer and, also, allow for it to be more widespread for the simple reason that it would reduce space requirements.

In the history of hammer throwing there have been several different sets of rules regarding both the implement and the competition itself. Nevertheless, all the different competitions were accepted as hammer throwing because the basic characteristics of the sport were the same. The implement always was held in both hands, it always had a grip, the elbows were always straight, and it was always thrown to the side and back. The rule changes currently being proposed would not alter any of these fundamental aspects of the event.

While the possible outcomes of reducing the throwing circle could not be measured or calculated precisely, our estimations are as follows: if the diameter of the circle was reduced from 213cm to about 150cm, the number of spins would have to be reduced by one. By reducing the number of spins, the length of the throws should also decrease by 10-15%. The actual result, of course, greatly depends on the technical skills of the athletes.

Calculations concerning possible results of changes in the dimensions of the hammer are probably more accurate. According to such calculations, we believe that with the same speed of spinning as at today's world record, a throw of 45 meters would be likely if the hammer weighed somewhere between 11 and 12 kg and its wire was between 70 and 80 cm long.

In general, the above calculations cannot be very accurate because of the unique motion of hammer throwing. It would, therefore, be important to take the above numbers only as a starting point for comparison with real experimental results.

In conclusion, we believe that new rules must be devised in such a way as to allow for maintenance of the characteristic style,
Change the Rules of Hammer Throw, Please!

technique and movements of current hammer throwers, while ensuring, at the same time, that the event becomes safer. The goal should be to introduce rules which would make it impossible to throw the implement longer than 45-50m.

Hammer throwing is a spectacular and exciting event both for athletes and spectators. We strongly believe that it is in the best interest of our sport to keep hammer throwing on the roster. It is an event with a wonderful tradition. Currently, however, its future is in jeopardy due to rules that make it unattractive to all concerned. We are convinced that it is possible to turn the trend around with only a little more attention. It is our hope that the international track and field community realizes the danger and joins forces to push for positive change. It cannot be questioned that modification of the rules of hammer throwing is absolutely necessary! Only then will hammer throw continue to thrive into the next millennium. If, however, we fail to address this problem in time, the hammer throw may be doomed.