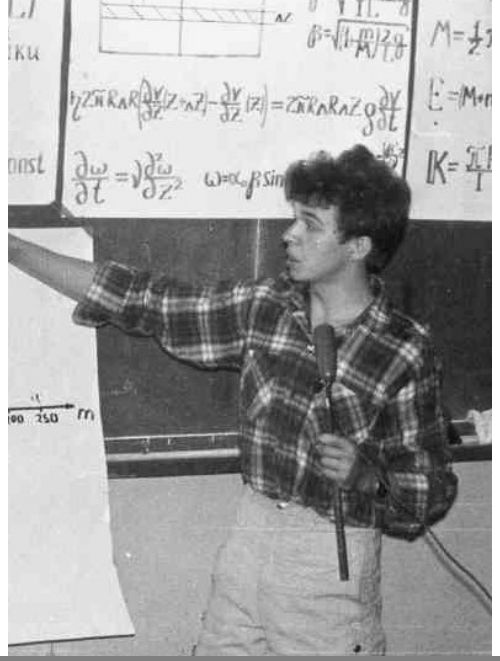


iypt archive

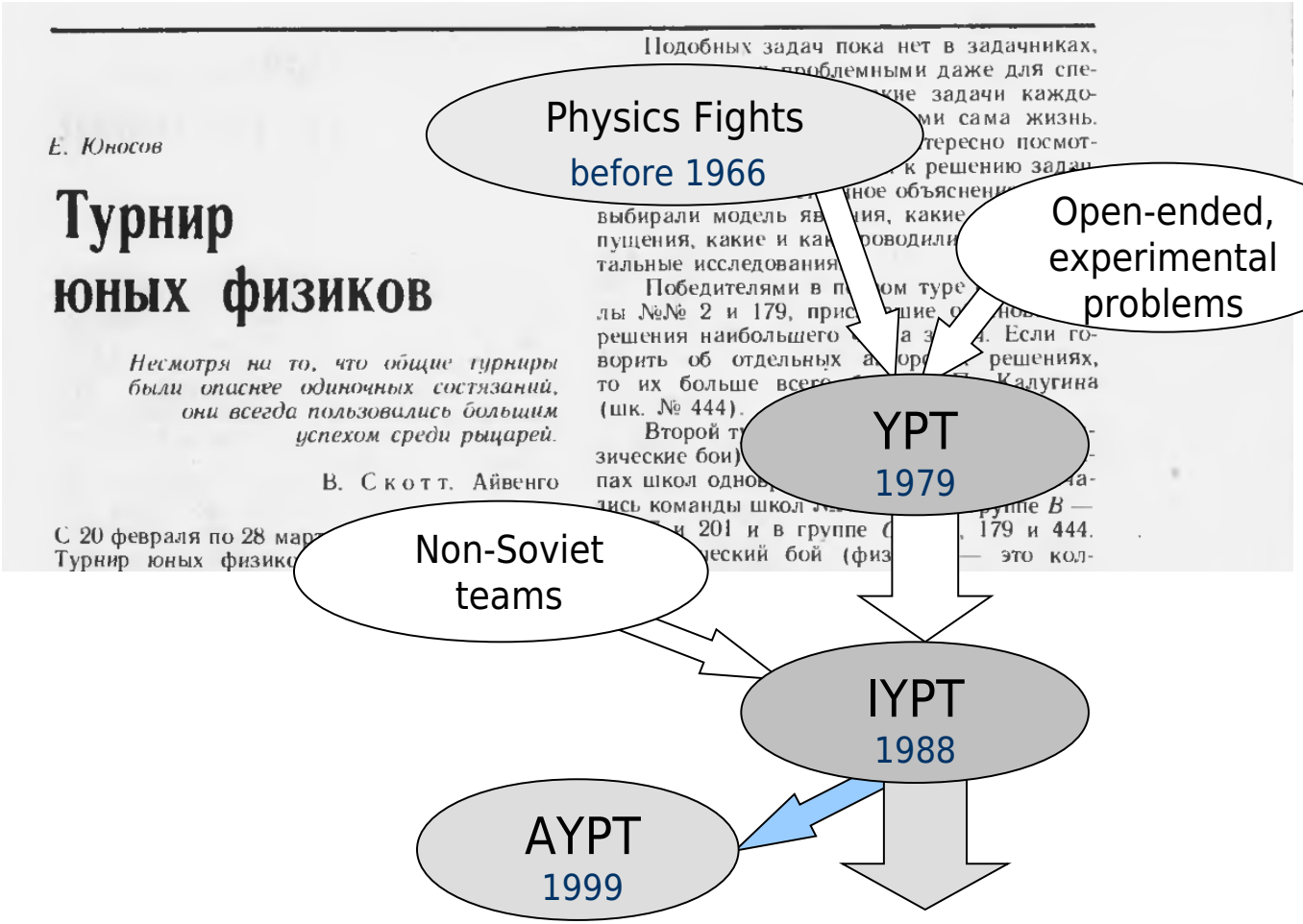
Ilya Martchenko

University of Fribourg *and* Lund University

May 5, 2011

1979—2011

Young Physicists' Tournament (1980)
by Evgeny Yunosov



Е. Юносов

Турнир юных физиков

Несмотря на то, что общие турниры были опаснее одиночных состязаний, они всегда пользовались большим успехом среди рыцарей.

В. Скотт. Айвенго

Квант, № 8, 1980, 57—58

1981: the logo is designed

1982
first publication

III Московский
турнир юных физиков

Ниже мы приводим условия некоторых задач заочного конкурса с краткими комментариями к ним.

Задача «Свеча». *Свеча, сгорая, светит и греет. Измерить теплоту сгорания парафиновой свечи.*

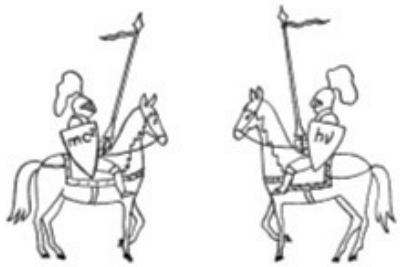
Простота формулировки задачи и возможность проявить свои экспериментальные способности вызвали живой интерес будущих физиков, и почти все школы прислали решение этой задачи. Наиболее интересной была признана работа И. Алексеева и Д. Свириды (с. ш. № 179) *).

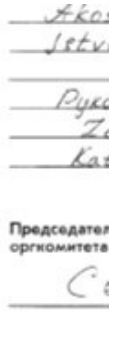
Задача «Колебания». *Большая нагруженная пробирка плавает в воде в вертикальном положении и может совершать колебания вверх — вниз (рис. 1). Рассчитайте период колебаний пробирки и измерьте его. Объясните расхождение между теорией и экспериментом.*

Теоретический расчет периода колебаний

Квант, № 2, 1982, 55—57

1990
today's version

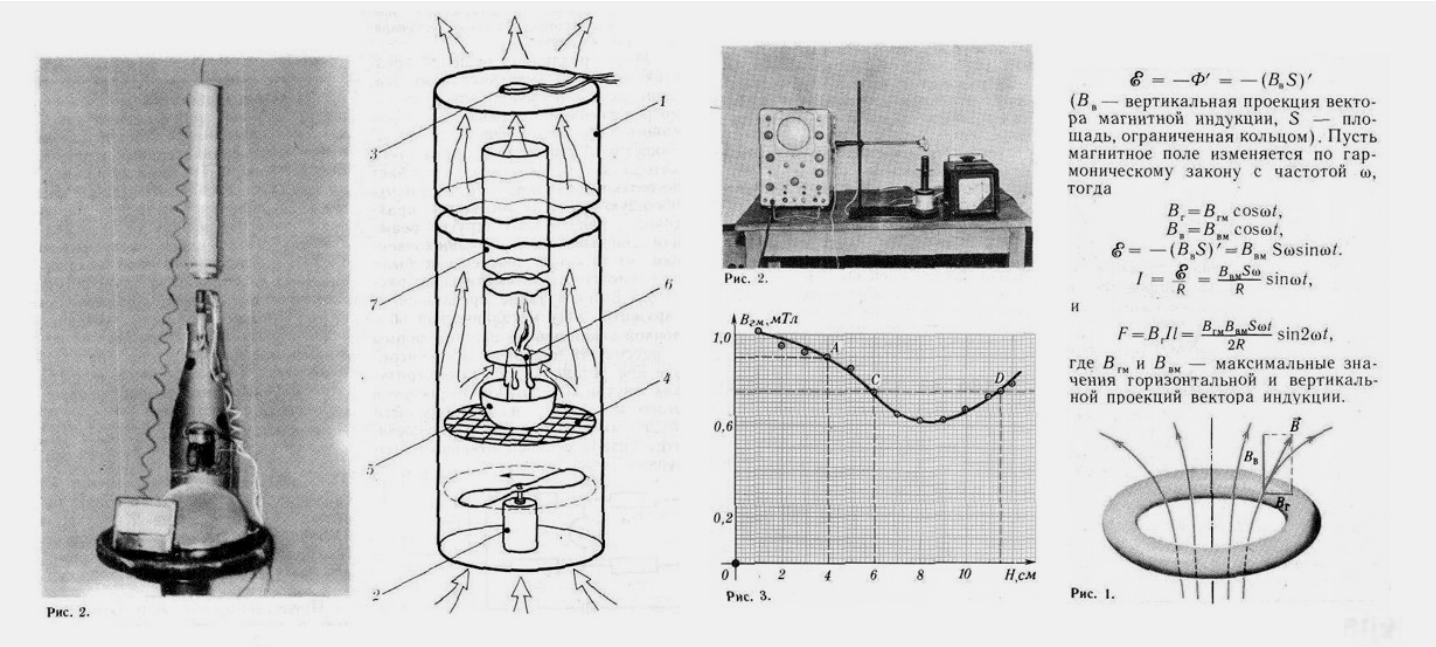




Dutch, Hungarian diplomas, 1990

1982: solutions submitted to journals

Prob. No. 3 (1981)
Prob. No. 8 (1981)



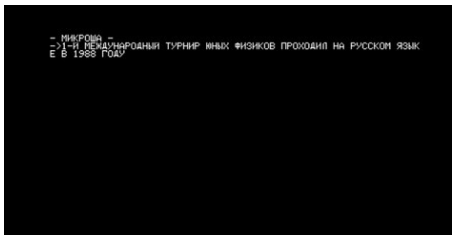
Soviet popular science journal *Kvant*

Квант, № 3, 1982, 17—19; Квант, № 4, 1982, 22—24

1988: numerical simulation in a Report

1.77 MHz CPU
32 Kb RAM

“It was a really impressive presentation — it included computer simulation of ocean surface.”



1989: IOC minutes

April 3—5, 1989

РЕШЕНИЯ

Международного консультативного совещания по вопросам организации Международных Турниров юных физиков.

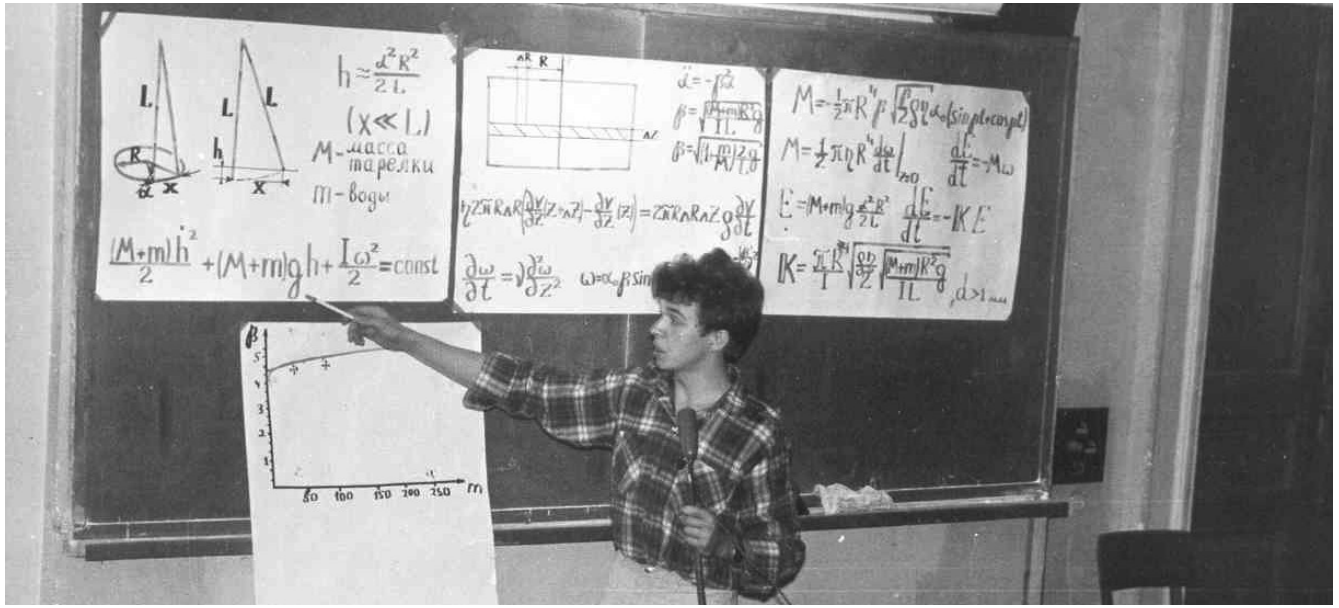
Участники консультативного совещания считают, что Турнир юных физиков является эффективной формой поиска и поддержки талантливой молодежи и нуждается в дальнейшем развитии.

“Consultative meeting appeals to UNESCO with a hope to obtain assistance and support and requests sending an observer to the III International YPT.”

Фотоархив Е. Н. Юносова, 1990 (?) Итоговый док. II Всесоюз., Межд. ТЮФ. — М.: 1989

1992: laptop for visual aids

“It was considered a *gesture of desperation* if someone wrote with a chalk on blackboard. ”



1992
Dutch team brings “laptop with a transparent LCD”

Sources

?

15. "The electron".
An electron, having velocity V = mps, moves near a metal ball with impact parameter D . The radius of the ball is a few centimeters. The charge of the ball varies as $q(t) = q \cos \omega t$, where q = Coulombs, ω = s. Draw the dependence of the scattering angle of the electron on D.

??

$q_0 = 10^{-3}$ C

$q_0 = 10^{-3}$C

$q_0 = 10^{-3}$ C

q=10 C

qo = 10 Кл

q = 10 coulombů

$q_0 = 10^{-8}$ Кл

I5. "Электрон". Электрон, имеющий скорость $3 \cdot 10^5$ м/с пролетает с прицельным параметром d мимо металлического шарика, радиусом в несколько сантиметров. Заряд шарика меняется со временем по закону $q(t) = q_0 \cos \omega t$, где $q_0 = 10^{-3}$ Кл, $\omega = 10^8$ с$^{-1}$. Постройте зависимость угла отклонения электрона φ от прицельного параметра d.

Sources

Czechoslovak team leader in 1988:

The winners of the previous seven IYPT:
1. 1988: Poland and Soviet Union

Hungarian team leader after ca. 1990:

The winners of the IYPT
1988: Poland and Soviet Union

Polish team leader in 1989:

"No Polish team in 1988"

Participant, "winning" Soviet team in 1988:

"Not winners, no competition at all"

Late account, 2004:

В 1988 г. был проведён первый всесоюзный и международный турнир. В нём приняли участие команды из союзных республик, Чехословакии, Венгрии и другие.

Hungarian team leader, 1989:

"No Hungarian team in 1988"

Czechoslovak team leader in 1988:

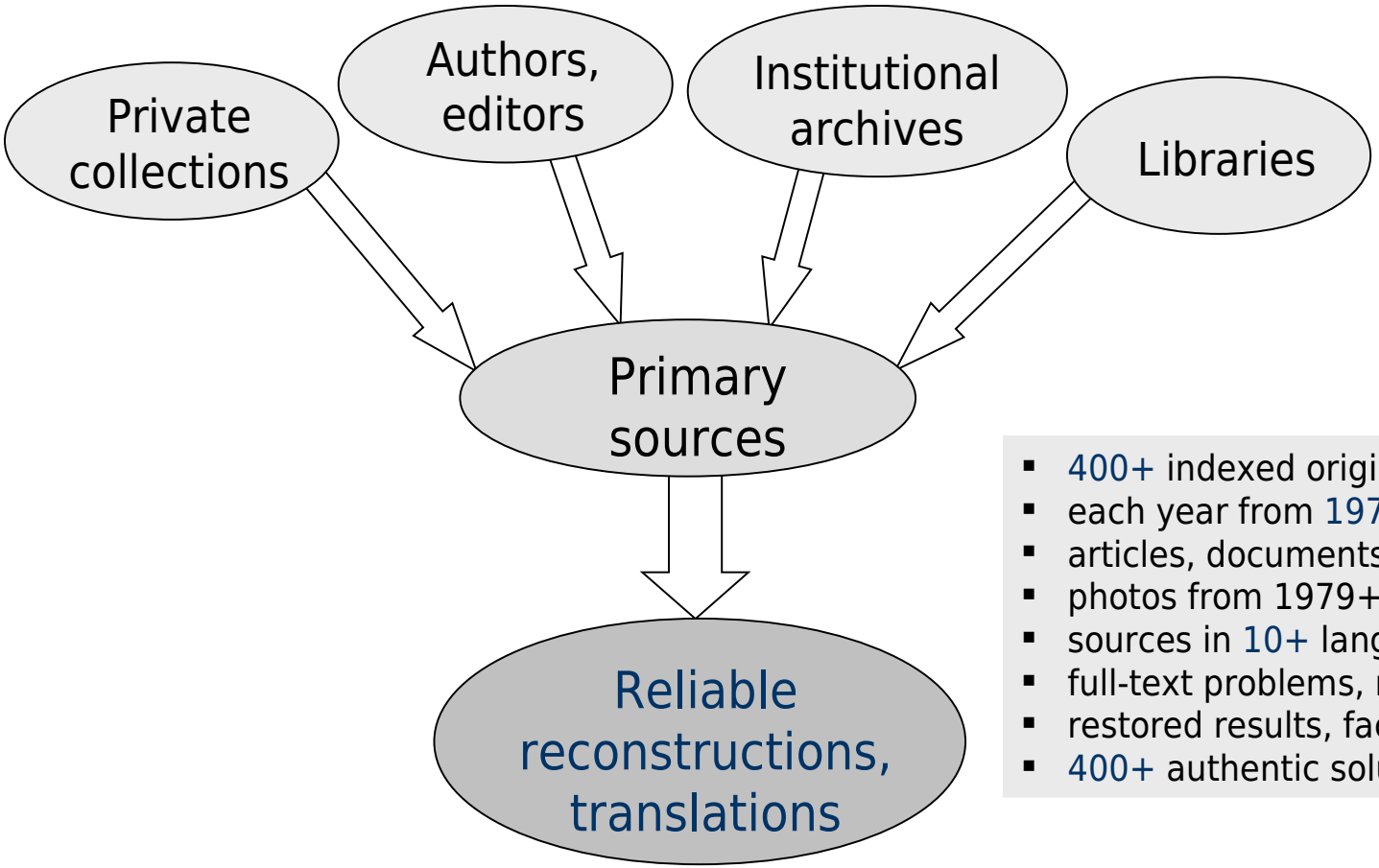
1. mezinárodní TMF za účasti družstev BLR, ČSSR a SSSR.

Bulgarian team members in 1988:

"Yes, we were there in 1988"

A careful reconstruction is necessary :-)

How the Archive works



- 400+ indexed original items
- each year from 1979 onwards
- articles, documents, interviews, more
- photos from 1979+, videos from 1996+
- sources in 10+ languages
- full-text problems, regulations
- restored results, factfiles
- 400+ authentic solutions from 1981+

Permanent safekeeping

When all important data is published online, it cannot be easily lost. Otherwise information loss is a serious threat to organizations like the IYPT, especially due to the fact that the main work is done by an LOC, which changes every year. To give an example, trying to find out the final team ranking of the IYPT 1993 proves to be a nearly impossible task. This information is not available online anywhere. One could only try to find out who was responsible for this IYPT and contact this person directly. However, a few years from now that may not be possible anymore, because even the responsible persons might not have the data any more. Data archiving is a responsibility which has to be centralized.

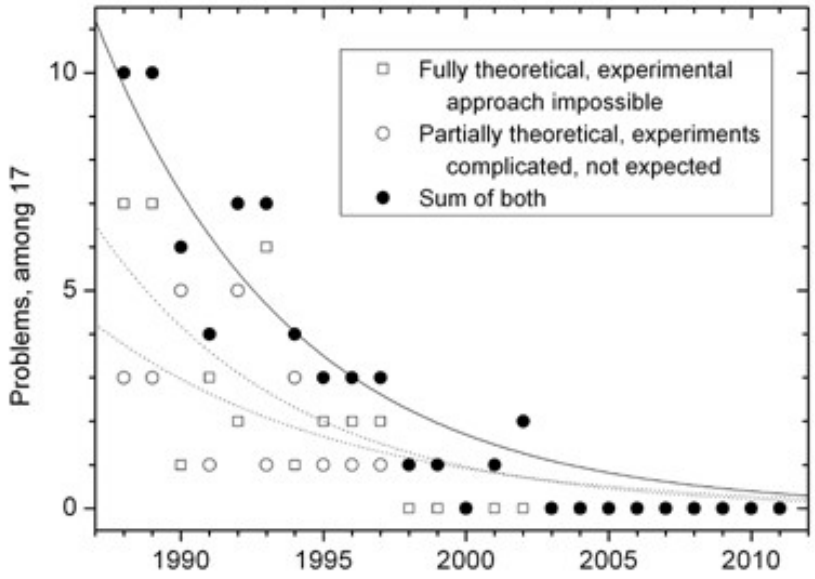
Georg Hofferek
about data loss (2007)

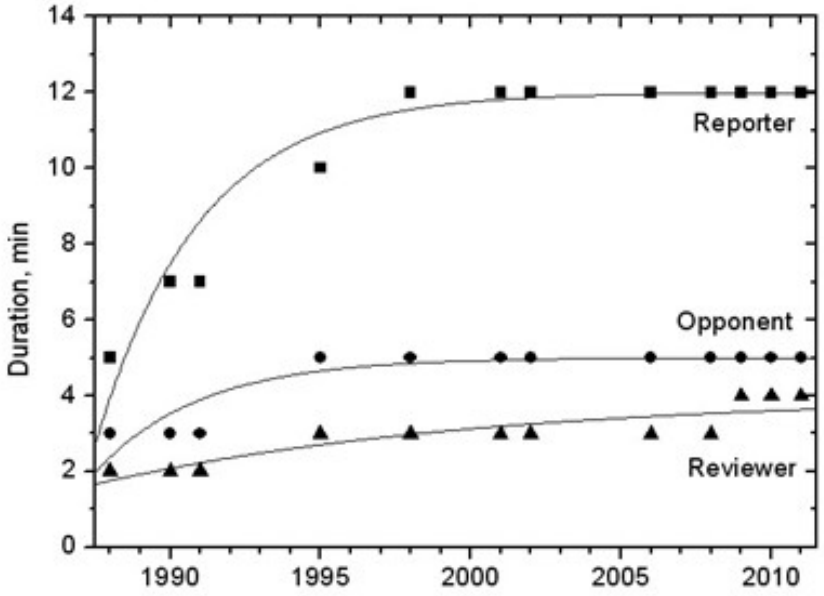
7 out of 10*

* number of fully or partly discontinued local webpages, in 1997—2006

Proc. 20 Years of the YPT (Hradec Králové , 2008), pp. 27—35

IYPT in the long run





Fully theoretical problems
gradually phased out

Stage performance
gradually made longer

iypt archive

Welcome to the Archive!

Welcome to the information site for the IYPT Archive, a comprehensive collection of hundreds of digitized sources unveiling the details and highlights of the IYPT's history. The Archive is currently a personal initiative, and home for a research project aimed at providing a coherent record of problems, results and regulations from the earliest YPTs and IYPTs.

International Young Physicists' Tournament, IYPT, has grown since its establishment in 1988, from a Soviet-based Russian-language competition, into one of the World's largest and most prestigious international physics contests with almost 30 nations competing annually.

In the rush of the growth of the competition, the opportunities for continuously maintaining the archives and proceedings were sometimes neglected. The critical factual details of the earliest YPTs and IYPTs have been up to now obscure, often debated, and sometimes considered lost.

Research output

Detailed history of IYPTs in 1988—1993
Posted on May 2, 2011; PDF file
Working draft of a research paper

Problems for the 1st IYPT (1988)
Posted on May 1, 2011; PDF file
Translated, restored, and commented text

Problems for the 2nd IYPT (1989)
Posted on May 1, 2011; PDF file
Translated, restored, and commented text

Problems for the 3rd IYPT (1990)
Posted on May 1, 2011; PDF file
Translated, restored, and commented text