

# MADE IN HUNGARY

THE STORY OF THE INTERNATIONAL  
ASSOCIATION OF PHYSICS STUDENTS

JIM GROZIER

Cover photo: Poster session at ICPS 2007, London

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ASSOCIATION OF PHYSICS STUDENTS

PART 1:  
1986-2010  
BY  
JIM GROZIER

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## PREFACE

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There are some who would question the need for the history of an association that is only 25 years old. There are others, or maybe they are the same people, who would argue that, since IAPS is never going to be in the same league as the Royal Society or the Institute of Physics, it is not of sufficient interest to warrant the writing of a history. For those people, I will attempt to sketch out the background and motivation.

I can best explain my motivation with reference to two buildings. The first is Bletchley Park, the World War II codebreaking centre where the Enigma code was cracked and where the foundations of the British computer industry were laid. In 1991, despite its history, Bletchley Park was due to be demolished and replaced with housing; and people who had worked there during the war were invited to a “farewell party”, where many of them met up for the first time since the war. By sharing their own personal stories – previously forbidden by the Official Secrets Act – the participants realised what a treasure house they were sitting on, and formed the Bletchley Park Trust, which saved the site for the nation; today it is a very successful tourist attraction. Newhaven Fort, in East Sussex, was less fortunate; although dating back to the 1860s, and on a site which had seen guns placed in defence against the Spanish Armada, it had been used as recently as the Second World War and therefore did not count as “history”. By the time it was declared an “ancient monument” in 1979, large sections of it had already been demolished by developers, making the subsequent restoration much more difficult and expensive.

What has that got to do with IAPS, I hear you ask? Well, in 2006, when I was finishing off my PhD thesis and wanted to add a section on the history of our experiment. I interviewed Mike Pendlebury, our retired professor, and

Ken Smith, who had been Mike’s PhD supervisor. Ken told me about working at Cambridge in the 1940s with his supervisor, Otto Frisch, the man who coined the term “fission” for the break-up of a uranium-235 nucleus. He also recommended Frisch’s autobiography, *What Little I Remember*, a delightful little volume packed with anecdotes and portraits (in both the literary and the artistic senses – Frisch was a gifted artist as well as a musician) of people with whom the author had worked.

Frisch’s title is significant, as is his dedication “For my daughter Monica, who made me write this”. I couldn’t help wondering about all the things he had forgotten about by the time he wrote the book, when he was already over 70. And I thought about all the other physicists who did not have persuasive daughters, and who might perhaps have taken their memories to the grave instead of writing them down.

It seemed to me then that the lives of these venerable physicists are seen, by themselves and their contemporaries, in the same way as Bletchley Park and Newhaven Fort were seen a few decades ago – as “not important” – until, that is, after many more decades, they are seen to occupy a crucial slot in history. But by then – if no action had been taken – the physicists and their memories would be dead; the buildings demolished to make way for housing estates. IAPS today is still a relatively unknown organisation; hopefully by the time it celebrates its 50<sup>th</sup> anniversary, it will have established more of a name for itself. The founders of IAPS, and those who helped it to grow and prosper, will have an important rôle to play at those celebrations; but by then they will be old, their memories perhaps no more reliable than Frisch’s was when he started to write. It is for that reason that I am telling their story now.



# 1. INTRODUCTION: A UNIQUE COMBINATION OF CIRCUMSTANCES

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Anyone who has been part of a voluntary organisation will be aware that such organisations are often seen very differently depending on whether you are on the inside or the outside. People often assume that such organisations have always existed, or are part of the establishment, having been set up by some government decree or as an initiative of some pre-existing established body; in other words, they tend to take them for granted. Since it takes a huge amount of work to get a voluntary organisation off the ground and keep it going, such attitudes can be very demoralising to those on the inside who are doing all the work.

For any such organisation, the story of how it somehow lifted itself off the ground by its own bootstraps and turned into a viable, self-sustaining concern is interesting in its own right, and is a story that needs to be told, if only to counteract these prejudices. But in the case of IAPS, there is an additional twist to the story, in that, on looking into the circumstances of its birth, one is drawn to the conclusion that it is the product of a very special – one might even say unique – combination of circumstances.

IAPS was established at the second International Conference for Students of Physics (ICSP), held in Debrecen, Hungary, in 1987; the first ICSP had taken place in Budapest a year before. As I will show in a later chapter, the seeds for the establishment of IAPS and ICSP (later re-named the International Conference of Physics Students or ICPS) were sown during a five or six year period prior to the first conference. The history of Hungary during the 30 year period from 1956 to 1986 is the story of an initially repressive and isolated Communist regime undergoing a gradual liberalisation process, which by the mid-1980s had almost run its course and set the scene for a more rapid transition; young people living in such a society who were planning to become physicists had both the motivation, and, in a rapidly changing society, the opportunity, to reach out and make contact with the international physics community. To do that required courage, because such grassroots activity broke all the taboos imposed by 40 years of centralised, top-down government. Luckily, a small group of students in Budapest were prepared to take on that challenge.

This is their story. First, however, a brief look at the historical context.

► *Group photo, ICPS 2010, Graz*



## 2. SETTING THE SCENE: HUNGARY IN THE 1980S

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The territories that comprise modern Hungary boast a thousand-year history, although for a substantial part of that thousand years they were part of a much larger country, which in turn was at times attached to huge empires, including that of the Turks, and later the Austrian Empire, ruled by the Habsburg dynasty. Although the Hungarians deposed the Habsburgs in 1849, they returned under the “Compromise” of 1867, which ushered in the Dual Monarchy of Austria-Hungary. Consequently, at the end of World War I in 1918, Hungary was on the losing side; four years earlier, war had been declared on Serbia by Austria following the assassination of the Habsburg heir, Francis Ferdinand, by a Bosnian Serb, Gavrilo Princip, who wanted his country to share the independence already enjoyed by Serbia itself. This rapidly escalated into all-out war in Europe, with Germany joining forces on the Austrian side and Russia, backed by the Entente powers, Britain and France, supporting its ally Serbia. The ensuing Trianon peace treaty, signed in Versailles in 1920, re-established an independent Hungary, but it was a Hungary reduced to only a third of its pre-war size, with Transylvania awarded to Romania, and smaller territories to the new states of Czechoslovakia and Yugoslavia.

Much has been said about the role of the Versailles treaty in stoking a bitter nationalism in a Germany deprived of many of its pre-1914 territories and obliged to pay large reparations which crippled its economy, thus paving the way for the rise of the Nazis. In a similar way, the humiliation of Hungarians in the wake of the Trianon treaty led to a period of post-war instability, in which a short-lived experiment with communism was followed by an increasingly right-wing regime which resembled, rather too closely, Hitler’s Nazis, including the introduction of anti-Jewish legislation, and eventually led to the country being subjected to a reign of terror at the hands of the fascist Arrowcross Party. Hungary’s leaders in the 1920s and 30s, despairing of any other solution to the

loss of its former territories, found themselves increasingly looking to Germany for support. This bore fruit in the form of the so-called “Vienna Awards”, brokered by Germany and Italy, which returned some of the former territories (albeit only temporarily, as it turned out), but ultimately it also dragged an initially neutral Hungary into another disastrous war, once more on the wrong side.

### THE COMMUNIST ERA

Budapest was liberated by the Red Army on 13<sup>th</sup> February 1945, and by April the whole country was under Soviet occupation. But this was no *coup d’état*; free elections were held in Hungary in November 1945, with the Communists receiving only 17 % of the vote. Even at the next election, two years later, by which time the Communists had had a chance to manipulate the system in their favour, their share of the vote only rose to 22 %. Steadily, however, the “facts on the ground” represented by the occupying troops took their toll on the struggle for power, and the Communists simply sidestepped the elected government and imposed their will with the backing of the Red Army and a 50,000 strong political police force.

The Western powers raised objections to this slow extra-parliamentary accumulation of power; but their hands were tied by agreements made at a secret meeting in 1944 between Stalin and British Prime Minister Churchill [1]. At this meeting, the British and Soviet leaders had agreed to the division of Europe into “spheres of influence”, with the USSR being allowed a 90 % influence on the affairs of Bulgaria and Romania, and the British having a similar stake in Greece. In other countries, such as Yugoslavia, East and West were to have equal influence, and Hungary was originally one of these. Stalin kept his word in Greece, by actively preventing the rise of the Communists; however, with the death of US President Roosevelt



and his replacement by the hard-liner Harry Truman, American policy changed from co-operation with the Soviets to a cold war position in which the West would make no concessions. Whether this “Truman Doctrine”, and its associated economic strategy, the Marshall Plan, led the USSR to disregard previous agreements and transform military domination into political power in the remaining Eastern European states, or whether it was their intention all along, by 1948 the Communists were in complete control, and had transformed Hungary into a totalitarian state in which alternative parties had either been closed down or merged with the Communists, and a reign of terror established which used show trials and executions – notably that of the former Communist minister, László Rajk in 1949 – and the impris-

onment of some 16,000 “class enemies” in labour camps, to shore up an unpopular regime. As the Hungarian poet György Faludy put it, “we were living in a country where innocent people could be arrested and hanged, if and when the authorities so pleased” [2].

The hard-liner, Mátyás Rákosi, was chosen by Moscow as the man to lead the Hungarian Communists, and ruled the country by means of what László Kontler describes as “a personality cult of astonishing dimensions” [3]. But agricultural output suffered from the diversion of resources into heavy industry, and rationing was introduced. After Stalin died in March 1953, a process of “de-Stalinisation” was initiated, and Rákosi was reprimanded by the Soviets and replaced by Imre Nagy.



► A memorial to victims of totalitarian regimes, at the “House of Terror” museum, Budapest

Nagy was a former agriculture minister who had earned a reputation in 1945 as “the land distributor” for handing out small plots to landless agricultural labourers and peasants. He introduced measures aimed at improving living standards and morale, including wage increases, price reductions, and a reduction in heavy industry. Peasants were allowed to

leave the co-operatives and there was more tolerance of intellectuals; the internment camps were wound up, and the secret police muzzled. But with another change of the political wind in Moscow, Nagy himself came under attack and was replaced by another hardliner in 1955, with Rákosi back in effective control.



## THE 1956 REVOLUTION

The two “wings” of the Communist party – Rákosi’s hardliners and Nagy’s reformers – then entered into a tussle for dominance. When the Soviet Communist Party put the seal on de-Stalinisation in February 1956 at its 20<sup>th</sup> Congress, with a programme of toleration of different “national paths to socialism” and peaceful coexistence between East and West, public support for Nagy grew and there were calls for Rákosi’s dismissal. Moscow, fearing a repeat of the bloodshed in Poland following rioting by workers in Poznań in June, moved against Rákosi. Although his replacement, Ernő Gerő, was also a hardliner, popular support for Nagy grew. Following violent demonstrations in Budapest, he was reinstated on October 23<sup>rd</sup>. The new regime allowed some of the old parties to re-form, with several represented in a reshuffled Cabinet, and Soviet military units started to leave Budapest.

However, the international political situation turned out to be a worse enemy for Nagy than Rákosi. In what must be one of the cruellest tricks history has played in recent times, a crisis was developing in the Middle East at exactly the same time as the reforms were being implemented in Hungary. A joint British, French and Israeli force intervened in Egypt to prevent the nationalisation of the Suez Canal by the Egyptian government, which was supported by the Soviet Union. A deal was struck: the USSR agreed to remain passive on the Suez question if the West would not interfere in Hungary. So once again Hungary was betrayed by the superpowers: Nagy’s call for UN support, and his announcement of neutral status, went unheeded; the Soviets invaded Budapest on November 4<sup>th</sup> and after about a week of fighting in which 3,000 people were killed, it was all over.

The failed Hungarian revolution in 1956 – foreigners are chastised for referring to it as merely an “uprising” – caused shock waves that were felt on a global scale. It convinced people all over the world that Stalinism was the wrong course, and provoked mass resignations from western communist parties. I even remember it myself – though at the age of five, I was unaware that the word I was hearing on the radio was the name of a country and not the English word “hungry”. Tragically, as I recall my mother pointing out to me, the

words were probably synonymous at that time, at least for those who managed to escape, if not for those who remained behind. At the head of the Soviet invasion force as it entered the capital was Hungary’s new leader: János Kádár.

## KÁDÁR AND THE LONG ROAD TO CAPITALISM

Kádár was to rule Hungary for 30 years. He has been described as a “cautious reformer” [4] with a talent for second-guessing how far Moscow would permit him to go, and going just that far; then again, perhaps he was motivated more by survival instinct than by lofty political ideals. The memory of the 1956 bloodshed was always there as a potent reminder of what might happen if he lost the support of either the Hungarian people or the Soviet régime; so he steered a middle path.

Not that the Hungarian people were prepared to give him any support, at least at first; as a member of Nagy’s short-lived government who defected to the USSR 48 hours before the Soviet invasion, Kádár was not popular, and his first act – to try, and execute, Nagy and several others in secret – did not exactly help to improve his image. Nevertheless he set to work building a Hungary suitable for the “little man” who was not interested in politics but only in a decent standard of living. Thus was born the era of “goulash communism” [5] in which Hungary became perhaps the most liberal communist regime in the eastern bloc. One of Kádár’s most popular slogans was “He who is not against us is with us” – a deliberate rewriting of the classic Stalinist paranoia. His strategy was to toe the Moscow line in foreign affairs, while exercising a certain amount of freedom to push through reforms at home. Thus, while in 1968 Hungarian forces joined in the bloodless Warsaw Pact action against Alexander Dubček’s liberal regime in Czechoslovakia, that year also saw the introduction in Hungary of the “New Economic Mechanism” in which control over individual economic units was loosened, prices were liberalised and wage differentials were increased. These reforms were temporarily abandoned in the early 1970s due to pressure from Moscow, but in 1978, mounting national debt set the scene for more radical changes which it was hoped would

stimulate the economy. In 1983 the economic reforms were joined by a liberalisation of the political system, in the form of multiple-candidate elections, leading in 1985 to a parliament with 10% of non-Communist deputies.

However, after an initial period of growth, the economy stagnated, leading to inflation. Incomes were propped up by means of further borrowing, resulting in huge debts (20 billion dollars by the end of the 1980s). The “little man” became disgruntled. Then, in 1985, one of the twin constraints on Hungary’s manoeuvring was removed: Mikhail Gorbachev became leader of the Soviet Communist Party, with an agenda of openness (*glasnost*) and restructuring (*perestroika*) that went beyond the aspirations of the cautious Kádár.

For young people growing up against this background, there was plenty to be optimistic about. Although the future was un-

certain, with the legacy of 1956 a potent reminder of what could go wrong, much had changed since those days. Those who were preparing for a career in a global discipline such as physics knew that they were living in a country that was cut off from the rest of the world, and were therefore at a disadvantage compared with their counterparts in the west; but they also knew that their country was changing fast. The scene was set for a heroic demonstration of people-power. Perhaps in no other country, at no other time, were the conditions so favourable for the setting up of an international physics students’ organisation. They had the motivation that came with their isolation – something not felt by citizens of more liberal regimes – and they had the luck to be living in a time of great social upheaval when it must have seemed that anything could be possible if one was prepared to just push a little. And some of them were prepared to do some pushing.

### 3. AN IDEA WHOSE TIME HAD COME

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Eötvös Loránd University (*Eötvös Loránd Tudományegyetem* or ELTE) in Budapest is the most prestigious university in Hungary for aspiring physicists. The name of the famous Hungarian physicist, who carried out essential groundwork on gravity and helped pave the way for Einstein’s General Theory of Relativity, was actually only given to it in 1950 by the Communist regime, who wanted the university – then the Royal Hungarian University – to be named after a scientist; nevertheless Eötvös does have some claim to the honour since he was Rector of the university in the late 19<sup>th</sup> century, and even had a special staircase built so that he could ascend the tower on his horse.

In the 1980s, to get onto a physics course at ELTE you had to be among the brightest students in the country. Only those with maximum marks in their qualifying examinations

were admitted; normally this equated to about 30 students, but in 1981 there was for some reason a particularly small cohort – only 16 students.

Péter Lévai was one of those 16. He was nineteen years old, having completed a year of the mandatory military service that applied in Hungary at that time. At ELTE he found himself in a close-knit community where the physics students, regardless of which year they were in, did many things together. But something was missing: Lévai knew that a career in physics meant collaborating with people in other countries, but the physics education on offer did not have an international dimension.

Luckily, thanks to the cohesive nature of their community, Lévai was aware that Istvan Furó and Csaba Tóth, who were three years ahead of him, were thinking along similar

lines. Furó and Tóth were secretary and vice-secretary respectively of the physics section of the Young Communists' Federation, KISZ (*Kommunista Ifjusági Szövetség*) which was the only allowed activity for students at that time. "KISZ was formally not compulsory," Furó told me, "and some – very few and typically rather brave and strong-willed – students did, indeed, opt out. Every year, it was assumed that the newcomers join the KISZ. Hence, it was quite a shock that the 1981 class refused to do it." Hungary, he says, was starting to become "a rather sloppy dictatorship" by that time and there was no overt pressure; nevertheless, Furó went to talk to them on his own initiative, and explained that KISZ was the only existing channel for student influence, that it could provide much-needed legitimacy for voluntary initiatives, and that it had financial resources. He added that "it is OK not to give a damn about ideology but to try to do something useful". The whole class then became members, and they turned out to be a very active group.

Lévai, Furó, Tóth and others held discussions under the auspices of the "Physicists' Club" which had been started up by students in the year above Furó and Tóth's. "Building connections abroad, to the West, was very much in the air," Furó says. (He himself had had his first tourist trip to the West the previous summer.) "Of course, we had no idea that in just 7-8 years time the system just crashes completely but some significant cracks must have appeared and been visible. That the system is not working and is pretty much nonsense was, though, clear to most of us".

Hungarian physics students were already participating in national meetings called TDK (*Tudományos Diákkörök Találkozója*), student conferences for natural science students, where results from internship projects were presented, and some had also participated in physics students' exchanges with Leningrad (now St. Petersburg) and other Eastern European cities. However, they felt that involving Western universities "should be a more interesting, challenging, and personally rewarding task." Then, in about 1983, an opportunity arose for an exchange with physics students at Heidelberg in what was then West Germany. Furó and Tóth were by

then at the end of their 5-year course, and the responsibility for organising it passed to Péter Lévai. He made contact with Heidelberg, and after about a year of preparation, managed to set up an exchange during his third year (1983-4). "It was not so simple", Lévai explains. "To go to Western Europe at that time you needed a special passport. We didn't have passports, but we got a letter of authorisation from the Ministry of Education for 10 people, which meant that we had to travel together". Having convinced the authorities that they would not defect to the West, they were given permission.

The exchange was successful, and Lévai was keen to repeat it the following year, and also to find a way of doing it more officially so that it would be easier for future generations to organise. However, when they contacted Heidelberg again, it became clear that the Germans wanted to look for other exchange partners and not be limited to only one destination. They would have to look further afield for alternatives.

A former classmate of Lévai's from secondary school, Katalin Körössy, was studying economics and was president of the Hungarian section of AIESEC (Association Internationale des Étudiants en Sciences Économiques et Commerciales) in 1984; she suggested he contact IAESTE (International Association for the Exchange of Students for Technical Experience), which organised exchanges by matching up universities that wanted to exchange. However, IAESTE, which was an engineering-based organisation, was unable to find enough physics placements in other countries for the Hungarians to go to. Lévai then took the decisive step: if no existing organisation could do this, he would set one up on his own. To do that, he would need to make contact with physics students in other countries, and the best way to achieve that was to organise an international conference.

Enter Patroklosz Budai, who was half-Hungarian and half-Greek. (His Greek father, who worked in the import/export trade, had changed his surname from Benatos to Budai under pressure from his superiors, who pointed out that he was representing the country and therefore ought to have a more

Hungarian-sounding name; after the fall of the Communist regime, however, the family changed their name back to Benatos.) Budai was two years below Lévai but, because of his mixed parentage, was already used to international travel. He was also very enthusiastic and imaginative. Like Furó and Tóth before him, he was concerned about the state of physics education in Hungary and wanted to improve it.

“I was surrounded by an education system that was lacking a lot of things. A lot of things needed to be improved,” he told me, citing, as an example, a Fortran class taught in a classroom with no computers, by writing code on the blackboard, a deficiency which he and his colleagues managed to get corrected. A more serious problem was the lack of an international dimension. “Science is done in an international framework,” he went on. “If I were to design a training scheme for physics students I would make them understand that you are going to cooperate with people from other countries such as Japan and the United States.”

Another essential component was a knowledge of English. Péter Ván, one of Budai’s classmates, got involved because he realised that a good command of English would be essential for a career in physics. But he was also inspired by a loftier goal: “I wanted to do something for the sake of our small society – a kind of social work”, he says. “This is still a principle for me. I try to do things, beyond my work and my family. To do something for the other humans around.”

### THE CONFERENCE TAKES SHAPE

Lévai, Budai and Ván were joined by another of Budai’s classmates, Ákos Horváth, and in the autumn of 1985 these four started to make plans for a conference. They were not working in a vacuum, however; apart from the “TDK” events, outdoor activities in the summer holiday were something of an institution in 1980s Hungary – there had been a Government scheme for young people (from secondary school age onwards) to do agricultural work in the summer, and when this came to a stop

in 1985, some of Lévai’s colleagues arranged their own “freshmen’s summer camp” in the Zemplén forest area of north-eastern Hungary, which became an annual event and has continued to this day. This features all kinds of zany and imaginative activities; Andras Zsom wrote about one such summer camp in *JIAPS* (Journal of IAPS) in 2004 where the students broke the record for the number of people they could cram into a hollow tree. The gender imbalance is taken care of by teaming up with students of other disciplines such as social studies, and apparently it has even been responsible for some marriages.

Lévai was also able to make use of a link he had established with the Central Research Institute for Physics (KFKI), in the person of its deputy director-general, Dezső Kiss. Kiss was a visiting professor at the University, where he liked to keep an eye open for good, motivated students, and Lévai had met him when, as a 2<sup>nd</sup> year student, he attended a seminar given by Kiss and asked him if he could become involved in some research work. Kiss put him in touch with a colleague, Dr József Zimanyi, and Lévai started to work with him, becoming a frequent visitor to the Institute. (This was the start of a long collaboration: Lévai worked with Zimanyi on the NA49 experiment at CERN, and went on to join the ALICE collaboration at the LHC.) When the organisers needed advice on the planning and organisation of the conference, they found Kiss and his scientific secretary, Márta Neményi, very helpful and enthusiastic. They also provided practical help, such as the printing of invitation letters, conference booklets etc.

This encouragement from the scientific establishment provided a vital boost to morale for the group, who were being warned from other quarters that their mission would fail. Such encouragement had been conspicuously absent, for instance, from their own university’s response to the initiative, although they did provide an office for the four to use, and some individuals, notable Sandor (Alexander) Szalay, a professor of Atomic Physics, were supportive. Furthermore, an early approach made to the European Physical Society (EPS), with a view to setting up a youth section to facilitate exchanges, had met with an unhelpful response, although EPS did come on board a



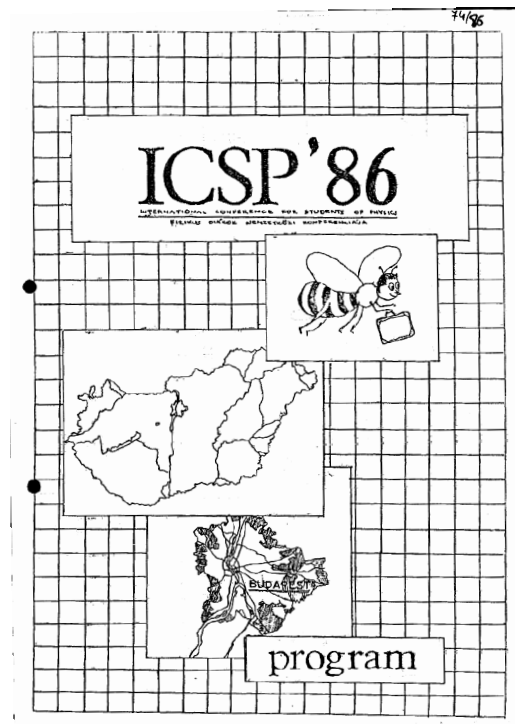
few years later. And they also got help from closer to home: Horváth's mother, an experienced organiser, gave them valuable advice on the planning of the conference. They sent invitation letters to physical societies and universities all over Europe (these were pre-email

this attention to detail was characteristic of Budai, and examples of his thoroughness and high standards occur frequently in the IAPS archive, and in the testimonies of his colleagues. For instance, when a typo was found in a mailing, he insisted on getting it re-printed; and, two years later, when the conference moved away from Hungary, he wrote to the organisers frequently to give them unsolicited advice. This attitude, while it might appear to veer dangerously close to "control-freakery," is probably an essential component of any group taking on such a task, and it worked because the rapport among the four was so good. Even now, Budai's colleagues tease him gently about those times, and he takes it all in good heart.

### THE FIRST CONFERENCE

The first International Conference for Students of Physics (ICSP) opened at ELTE on Thursday October 16<sup>th</sup> 1986, and ran for three full days (not counting arrival and departure days). It was attended by some 16 students from outside Hungary, as well as Hungarians from Budapest, Szeged and Debrecen. Kiss, Zimanyi and Szalay all gave lectures, along with two other guests; there were also student lectures, scientific visits (including an opportunity to observe a well-timed eclipse of the moon), and sporting, cultural and social events. The students were accommodated in the "Holiday House of the Government Youth and Sport Office."

At the end of the conference, everyone felt it had been a success and should be repeated, not just next year but every year. But the organisers knew that the conference was only a part of the overall plan. Something else was needed to make it sustainable – an international organisation. "We saw immediately... that what we had done would not be enough in the future", says Péter Ván. So, at the end of the conference, the organisers held a meeting to discuss future plans, and invited all the conference participants as well as representatives of the university. György Marosán, a veteran Hungarian politician with an interest in physics and education, who had been in the government as far back as 1948 and was a member of Kádár's administration, came to the meeting and gave it his support.



► ICSP 1986 handbook cover

days), as a result of which bookings came in from eight different countries – Hungary, Poland, Yugoslavia, Czechoslovakia, East and West Germany, Italy and the Netherlands.

The four did not have formal roles, but Budai became the de facto leader. The original team was augmented by many other helpers, and he recalls that they all worked extremely hard to achieve their aim. "It was just such a great thing. There was this team of people working, and – I have to say – if you could run an organisation as efficiently as the team that we had, that would be a superb organisation. We had this incredibly nice hierarchy of people working at different levels." They enjoyed it, too – "we had a great time," he says. He jokes that, just before the conference started, they even had a group of people cleaning the bathrooms in the accommodation block, because when people are going to a conference in a foreign country, the state of the bathrooms makes a big impression;

At this meeting, the proposal to set up IAPS was floated. “They were surprised,” Ván recalls. “You may imagine – you come to eat a pizza and they want you to build an oven...” However, the response was enthusiastic, at least among the students; and over the next year, the new organisation – as well as a follow-up conference – began to take shape.

### ANOTHER YEAR, ANOTHER CONFERENCE – AND THE BIRTH OF AN INSTITUTION

ICSP 1987 was held at Lajos Kossuth University in Debrecen, eastern Hungary. A local organising team from Debrecen was overseen by Budai, Horváth, Lévai and Ván, and Budai admits to having had to overrule the locals on occasion. “It was like those American movies where the Feds come in”, he says.

Word of the conference had spread in the intervening year, and interest was expressed in France, Romania, the UK and Sweden, as well as those countries that had participated in 1986, with the exception of Yugoslavia. Eleven different countries sent delegates, the total attendance being about 40. The UK representative, Kevin Chugg, suggested a slight name change to “International Conference of Physics Students” (ICPS), and that is the

name it has been known by ever since. (Chugg claimed that this was better English, but the real importance of this amendment lay not in the reversal in word order, but in the change of preposition, since the “of” conveys the all-important student-run aspect of IAPS and its conference.)

As well as all the academic, social and cultural activities that had been included the previous year, there was a formal meeting on the last day – Saturday September 12<sup>th</sup> – at which the setting up of IAPS was endorsed by all those present. Two classes of members were envisaged, namely national committees and individuals. (Local committees, covering a university or group of universities, were added later). Three national committees (Hungary, Poland and the Netherlands) signed up straight away, with many more following later.

Among the participants that year was a second-year student from Budapest called Tamás Fülöp. Fülöp, who had grown up in Kaposvár in the south-west of the country, had started at ELTE in 1986 (just in time to experience the first Freshmen’s Summer Camp), and found the intellectual atmosphere to be a welcome relief after his year of military service, where he had worked with people who were often illiterate and aggressive, in marked contrast to his own ambitious and cultural upbringing.



► The first IAPS AGM (Prague, 1988). 1<sup>st</sup> left: Tamás Fülöp. At the table (left to right): Andrzej Bobyk (leader of the Polish NC); Jan de Boer (leader of the Dutch NC); Mikko Vanittinen (leader of the Finnish NC) Standing: Patroklosz Budai. Péter Ván is 4<sup>th</sup> from left.

He had been present during the first conference, but, as a very new student, he says, “my contribution to the organising work was making coffee for the participants.” Even at Debrecen he played a fairly minor rôle, but was inspired by the ideas and visions of the older organisers, and volunteered to help build up the new organisation. There was much to be done; IAPS, at that time just an idea in the minds of its creators, needed documents drawn up to define its rôle, and a set of rules. That meant a Charter and Regulations, which, explained Fülöp, would provide IAPS with a “permanent backbone” to hold it together in the face of the constant changes of personnel, and the ups and downs, which are inevitable in a student organisation: when members of the group moved on, they would leave something behind for others to build on.

At that time Hungary did not even have a national organisation for physics students. In the past, it had not been easy to set up such organisations under the communists, but then a new law was passed which allowed the creation of civil organisations; Ván, Horváth and colleagues took advantage of this to found MaFiHe (*Magyar Fizikushallgatók Egyesülete* – Hungarian Association of Physics Students), which was among the first 10 civil organisations set up under the new law. This not only provided the much-needed continuity at the national level, but also set an example to show other countries what was expected. “We wanted to show a pattern that this is, for example, our national committee so this is how we expect other countries to organise theirs,” says Fülöp. They were also keen to impress on member countries that having a national committee was stronger than just having individual members.

The parting of the ways for the original group came at the end of the 1987 conference; Péter Ván became the first President of MaFiHe, and Ákos Horváth its finance officer, while Budai worked on IAPS, assisted by Fülöp; these two would become the first President and Secretary of IAPS respectively. (Péter Lévai, having now finished his degree, dropped out of the group at this point.) However, the international and national committees still shared an office at ELTE. Budai quips: “We were in the same office but we were sending them letters – ‘you silly Hungarians, here is a letter for you...’”

A subtle change now took place in the character of IAPS. Budai and Fülöp’s first priority, in line with the original goal of the organisation, was to set up student exchanges in the form of summer internships. But it turned out, after a lengthy correspondence, that IAESTE would in fact be able to do this after all, provided IAPS did the spadework and found suitable offers from among the home institutions of its members. The exchanges became just another IAPS activity, and the conference itself began to take centre stage.

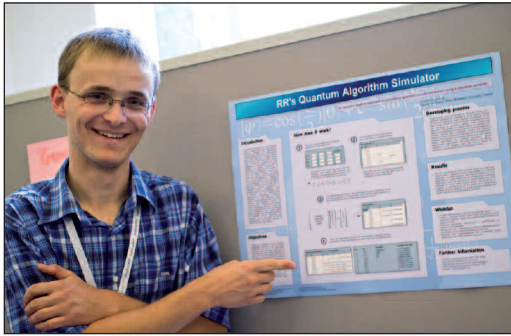
### TAKING FLIGHT

1988 saw ICPS moving out of Hungary for the first time; it took place in Prague, Czechoslovakia. From then on, the conference has been hosted by a different country every year (several countries have held it more than once, but never consecutively). In 1989 it moved into Western Europe, crossing the swiftly-disintegrating Iron Curtain. The conference opened in Freiburg, West Germany, on Monday August 28<sup>th</sup>; two weeks later, on September 11<sup>th</sup>, Hungary opened its borders and hastened the collapse of the Eastern bloc. On October 23<sup>rd</sup>, the Republic of Hungary was proclaimed. János Kádár did not live to see it; he had died earlier that year, on July 6<sup>th</sup>.

At its 1989 AGM, IAPS took another memorable step. Membership fees were introduced, along with a new Charter which mirrored much more closely the model constitution of a typical non-governmental organisation, the intention being to register the Association as a legal entity, open a bank account and be recognised by the international physics community. Formalisation of the status of IAPS took rather longer than anticipated, however; not until 1999 was the Executive Committee able to present to the AGM a proposal for collaboration with the European Physical Society, but at least the relationship has lasted – today, IAPS is registered with the French courts at the headquarters of EPS in Mulhouse, France, and EPS also hosts the Association’s bank account and provides useful advice.

Among the changes was a re-naming exercise: to harmonise more closely with international standards for such organisations, the ruling body of IAPS was to be known as the Central Office (CO), and would consist of a President





► *Krystian Hausmann with his poster at ICPS 2007, London*

and Secretary who must come from the same country, the maximum term of office being three years. (A Treasurer was added later). The Central Office replaced the previous governing body, which, presumably to avoid looking too hierarchical, was known simply as the "Information Bureau" and since 1987 had consisted of Budai and Fülöp. But between the lines of this bureaucratic manoeuvre were preparations for the step that the Hungarians knew must soon come – their relinquishing of control over the organisation they had nurtured from birth.

### MOVING ON

That year, Budai and Fülöp were re-elected, and at the 1990 AGM, Budai was re-elected again, sharing the Central Office with two new Hungarians. Fülöp had expressed the wish to stand down in his final year and concentrate



on his studies, so Csaba Csáki replaced him as Secretary, having "shadowed" him during the previous year. Csaki had talked his old friend Tamás Hauer into becoming IAPS' first Treasurer, although, as Hauer says himself, "there was not much treasure to look after; it was basically a group of three people looking after IAPS with me being the least important/visible." Hauer also remembers having to look after printing; "not as in printing today on a computer, but working with a real press, generating leaflets." Meanwhile, Csaki set to work on an attempt to register IAPS as an international organization with the UN, but hit a snag when it was pointed out that at that time it was predominantly European, not really international. so the UN were only prepared to register it as a regional organisation, for which they would require a change of name. This despite the recruitment during that year of a new national committee, the USA's Society of Physics Students (SPS), which delighted the CO and is described by Csaki as "a big coup".

The scene was now set for the management of IAPS to pass away from Hungary altogether. In April 1991, we find Budai, ever the organiser, clearly knowing that he too must step down soon (he had actually been studying for eight years by now, having "customised" his course of study to include far more material than the conventional five-year master's degree), writing to Vesa Tanner of the Finnish National Committee, describing that body as "the most reliable NC member of our organisation" and concluding that "the best place for the Central Office to be from September 1991 is Finland." In the event, the CO moved to the Netherlands, and stayed there for two years, stewarded successfully by Maarten Bruinsma, first as Secretary under President Bart Blommers, and then as President himself; then it was the turn of a Danish trio, with Bente Hansen becoming the first female President.

IAPS was standing on its own two feet at last. Overall, until the abandonment of the Central Office concept in 2007 in favour of a multi-nation executive, the association was run from twelve different countries.

► *IAPS AGM 1999, Helsinki*



## 4. IAPS BREAKS FREE

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The conference grew in duration, from a few days to a week, and gradually migrated from mid-October to mid-August. It also evolved. As well as the basic elements such as student and guest lectures, poster sessions, scientific and cultural visits, and parties, the IAPS Annual General Meeting had to be fitted into the schedule, and there were also team sports, and occasional features such as workshops and debates.

The number of participants also grew. In 1989, there had been about 50 delegates; the following year, the Dutch organisers planned for 125, but were swamped with applications and had to allocate places on a system of quotas for each country. In those early days, postgraduate students were not encouraged to attend; Budai suggested to the organisers of ICPS 1990 that PhD students be politely advised that “this is not your type of conference,” but this restriction was later dropped, and today postgraduates make up a large proportion – perhaps even the majority – of participants. Numbers eventually levelled out at about 350, which is a natural limit inasmuch as there are few lecture theatres that will hold more, and it is important for everyone to be able to attend the guest lectures and the ceremonies.

However, news of the conference did not spread evenly – even as late as 2004, the UK, for instance, despite having some 7,000 physics students, could hardly manage to muster more than a handful of ICPS delegates (although four years later, in Krakow, the UK & Eire formed the largest group). UK students had been attending the conference since 1987 on an individual basis, but there was no official presence in IAPS until Nexus, the UK/Eire physics students’ network, was formed in 1992 as a part of the Institute of Physics. Jonathan Fost, the founder of Nexus, attended ICPS in Lisbon that year with a colleague; “[We] were amazed by the reaction. It seemed as if every other country attended and they were amazed and elated that we were there... despite the American, Russian and nearly every other European organisation of physics being represented we were still

considered as THE Institute of Physics,” he said. Nexus played its part in publicising ICPS by awarding an annual lecture prize – free travel and entry to ICPS – to two students. Kathy Sykes, now Professor of Public Engagement of Science at Bristol University and a popular TV presenter, was one of those who took this route – she went to ICPS 1995 in Copenhagen as a PhD student, and repeated her prizewinning lecture to an international audience.

### CONSOLIDATION

IAPS membership grew over the years, with national and local committees being set up in more and more countries, although member committees themselves came and went; for instance, countries like Bulgaria, Spain and Sweden, which have been prominent in the past, are not well represented nowadays. The association established its own Journal (JIAPS), and organised summer schools, exchange visits and short trips to scientific places of interest; however, ICPS remained the jewel in its crown. Twenty-four conferences have now been held (not counting an “informal” ICPS that apparently took place in Bulgaria in early 1990) in a total of 21 cities and 16 countries.



► Student Lecture, ICPS 2008, Krakow

An annual visit to CERN in Switzerland was quickly established; Maarten Bruinsma's presidential report to the 1993 AGM regretted that the visit had had to be cancelled that year "because it is an IAPS tradition from the very beginning." This arose from an invitation from the Director General of CERN, Herwig Schopper, at a meeting with the IAPS founders in Budapest, organised by Márta Neményi. The first CERN visits tended to take place immediately after ICPS; for the 1988 conference in Prague, Péter Lévai had borrowed an old Russian car from the Institute and drove from Budapest to Prague, and then on to Geneva. In 1991, the responsibility for the CERN visit passed to Csaba Csáki, who recalls some drama during the visit, which coincided with the coup against Gorbachev in the Soviet Union. "We ... had several students from Lithuania who were supposed to join us – of course we didn't know if they will eventually make it or not. It turned out they left the border of the Soviet Union just hours before the coup was announced, and they were actually starting making plans of never returning if the coup held up!\*" Luckily of course by the end of our visit the coup collapsed, and everybody was able to return home." Such anecdotes remind us that in those days Eastern Europe was a very different place, as does the fact that, two years after the collapse of the Soviet bloc, the coup clearly caused concern even among the Hungarians.

Later, when CERN became a building site during the construction of the LHC, the trips became less frequent, but were replaced by visits to other places of scientific interest, such as the European Space Research and Technology Centre (ESTEC) in Noordwijk, Netherlands, and the UK's JET fusion project and Rutherford Appleton Laboratory; there was also a visit to Turkey to see an eclipse of the Sun in 2006.

Student exchanges remained a key activity, as confirmed in Bruinsma's 1993 report, and these too are still alive and well: in 2006, Katalin Gillemot from Budapest reported on a successful exchange between Hungarian and Norwegian physics students that she had organised, combining visits to KFKI (the institute that had helped to create IAPS in the first place) with

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\* Lithuania was still part of the Soviet Union at that time.

cultural trips and also some "catastrophe tourism" which had been necessitated by the flooding of the Danube. Finally, there are the summer schools; these are organised on an occasional basis, but seem to have taken rather longer to get organised than originally foreseen, since a report of a successful school in Finland in 2004 on "the Role of Organic Aerosols in Cloud Formation" refers to "the first summer school" having been held in Portugal two years earlier.

### THE LAST PIECE OF THE JIGSAW

All in all, then, IAPS was in pretty good shape when the conference returned to Hungary in 1996 in time for the country's 1000<sup>th</sup> birthday on August 20<sup>th</sup>. The Central Office had been set up, the Charter and Regulations had been established, and 10 conferences had been held in 9 countries. But one vital feature of the ICPS we know today was still missing.

Marton Major, a student at ELTE, was part of the Hungarian delegation to ICPS 1995 in Copenhagen. (He was, in fact, a student of Ákos Horváth, by then a lecturer, with whom he did some work that formed the basis of his ICPS talk that year.) A group of Hungarians had attended the previous year's conference in St Petersburg with the specific aim of preparing to host ICPS 1996, although in those days there was no formal requirement for bids to be considered by the IAPS AGM two years in advance, as there is now, and the preparations really only got going in 1995. But they were keen to impress people, and worked hard to make it a good conference. In Copenhagen, for instance, the accommodation had consisted of a large sports hall divided into compartments by what Major describes as "paper walls", and so they were pleased to be able to offer a proper hostel in Szeged.

Major was also concerned that there were not enough parties. These days, almost every night of ICPS is a party, and it is clear that this unique blend of the conventional components of a conference (lectures, posters, excursions etc) with the social side is a major factor in its success, and therefore in that of IAPS itself. But in the mid-1990s, there were only the welcome and farewell parties, on the

first and last nights, and a conference dinner. "I said, 'Let's make an extra party, but give some topic to it,'" he explains. For this extra party, participants were asked to prepare either "products (special food, drink, clothing, photos) or presentation (songs, verses etc.) of your country."

"People liked the idea, and all the countries were participating," says Major. It became known as the National Party, although it would be more accurate to call it the International Party, as it is a celebration of the national food and culture of each participating nation. In 1996, most of the national groups chose the second of the two options, but in later years the two strands became more equal, and nowadays all are expected to cover both. This sets delegates a formidable challenge – to produce something enjoyable and original with very sparse resources – which, over the years, has been met with much ingenuity.

First, stalls are set out, and each national group presents samples of food and drink (usually alcoholic), having prepared the former using whatever kitchen facilities can be found – anything from the main university refectory (e.g. Odense, Denmark, in 2003, and Bucharest, 2006) to a tiny hired kitchen in a backstreet (London, 2007, where the food preparation actually spilled out onto the pavement). Wonderful creations have resulted; predictably, strudels from the Austrians, pasta from the Italians, and curry (usually extremely hot) from the British, with the Finns usually going for some beverage incorporating an incredibly high percentage of alcohol, and (on at least one occasion) featuring some liquid nitrogen too.

Later in the evening, preferably when most of the food, and especially the drink, have been consumed, each group is called to the stage to perform some act, which may be song, dance, drama, mime, comedy, or any other kind of performance. Of course, most national groups prepare for this in advance, and just before the party the sound of singing is often to be heard in the dormitories. However, there is also an element of improvisation (not always intended), and the end result can look patchy, but, when viewed in context, it is usually very entertaining.

This one event encapsulates, in one evening, the spirit of ICPS, and is acknowledged nowadays as the centrepiece of the whole conference. Marton Major has his place in the IAPS hall of fame as the 10<sup>th</sup> President of the association; but for me his most significant contribution is the inauguration of an event which has seen such things, over the years, as a comedy sketch featuring a working chainsaw, a mass rendition of a Finnish drinking song, and 200 people joining in Monty Python's "Always Look On The Bright Side of Life."



► National Party at ICPS 1999, Helsinki

## CHALLENGES, PITFALLS AND HEROICS

Organising ICPS is a huge challenge; as a former member of an organising committee myself, I have to confess to having occasionally wondered whether it was an altogether sane thing to do. The fee is deliberately kept low, so that students from poorer countries can attend. That means that most organisers will face a huge sponsorship target, amounting to perhaps half, or even two-thirds, of the total budget. And when the money has been found, there are all kinds of things to sort out – student accommodation, lecture theatres, guest lecturers, excursions, the conference handbook, the IAPS AGM, sporting events, lab tours, food, bars, and



of course parties. Then there are some rather unusual challenges, specific to ICPS, and often met with very creative solutions. One task which crops up every year is how to get all the participants up in time for the excursions after a late party. In 2004, the Serbian organisers in Novi Sad found a novel way of doing this – they hired a 5-piece brass band to tour the corridors of the hostel at 7am until everyone was wide awake! The Hungarians had used piped music to wake people up in Szeged in 1996, so this was not a new idea, but it never became a regular feature, owing to the presence of other students in the accommodation at many conferences; the UK organisers in 2007 had to abandon a plan to send a bagpiper round the hostel at breakfast time when they realised that other residents might not appreciate it.



► *Wake-Up Call: ICPS 2004, Novi Sad*

In Helsinki in 1999, the Finns had a similarly inspiring idea – they moved the entire conference onto a boat for the last evening, and the closing ceremony was held on board, followed by an all-night party, while the boat went to Estonia and back. One year (it is probably best not to reveal the exact year or venue, to spare blushes) there was a mix-up over food, and some meals did not materialise. Luckily, the accommodation that year consisted of very modern student flats with superb cooking facilities, so no-one starved to death, although some participants did run out of money.

There have also been unsuccessful bids. Cambridge, Dubna, Stockholm, Italy, the USA, Greece and Nigeria have all developed proposals which reached the IAPS AGM, but no further – either because they were out-voted by other bids, or because they were only tentative ideas that were never firmed up. In 1994, the conference had a very narrow escape. Dublin had won the right to organise it that year, but the organisers were unable to raise sufficient sponsorship, and pulled out with only a few months to go. But one testament to the durability of ICPS is that it has never been cancelled altogether; even in 1994, the conference was hastily relocated to St Petersburg and went ahead without a hitch.

Stephan Witoszynskij, writing in *JIAPS* in 2004, recalled his experience of organising the second Vienna conference, in 1997. One particular headache he mentions is “the problem of visas. For some reason, the countries of the European Union seem to want to keep residents of some countries out...” Right up to the opening ceremony, he had been frantically faxing and phoning the Slovenian embassy on behalf of a participant who was stuck at the border with a wrongly dated visa.

This was not an isolated phenomenon; there are always visa problems. For instance, eight years after Witoszynskij’s marathon effort, Maria Joao Benquerenca did the same for a Pakistani delegate trying to get to ICPS in Coimbra, Portugal, and even paid for his air fare out of the conference budget. Both attempts succeeded at the eleventh hour, and the delegates got in.

There have been other IAPS initiatives that failed to become fixtures. Chief among these was the Network of Contact Persons – an admirable idea, but one that required a large pool of people willing to volunteer, and – more crucially – someone to manage the network. Much good work was done in the mid-90s towards establishing a communications network with representatives at universities throughout the world, but it clearly suffered from “personnel” problems, with one whole folder in the original archive devoted to the search for a student who had volunteered to run the network at ICPS, and had then gone missing.



## HARD TIMES

IAPS has occasionally fallen upon the hard times that Tamás Fülöp predicted. Being an officer of IAPS, or even just serving on the Executive Committee, is a huge commitment for a student with all sorts of other priorities competing for his or her attention. The most challenging rôle of all is that of President; for several years, this meant committing oneself to no less than three years with IAPS (one year as President-Elect, one as President and the third year as Past President) – a device that was intended to ensure the much-needed continuity between years. There was an additional problem, in that the Central Office structure meant that occupants of the two lesser roles – Secretary and Treasurer – were not directly accountable to the association, having been hand-picked by the President-Elect and “nodded through” at the AGM. During the year 2006-7, the President had to withdraw from involvement with IAPS for a while, and the other officers, who looked to her for guidance, seemed unable to carry on; IAPS went into a sort of paralysis until the 2007 AGM produced new officers. At that AGM, a new Charter was also adopted, which was intended to remedy these defects by abolishing the Central Office, and allowing all EC members to serve for more than one year. Now, instead of the three main officers having to be from the same country, they are elected as individuals and – it is hoped – will therefore be able to represent a greater cross-section of IAPS membership.

In fact, the new Charter was drawn up in response to a constitutional crisis precipitated by the abolition of the Regulations in 2005. Somehow a vital piece of information – that an organisation like IAPS, which is registered as a legal entity, needs to have two governing documents – the Charter, which defines the organisation to the outside world, and the Regulations, which cover internal matters – was forgotten, and so the Regulations, which were deemed to be “too restrictive”, were abolished. (This rather drastic action can perhaps be understood when one realises that so many new clauses had been added to the Regulations over the years that, by 2005, they called for an EC with three sub-committees, staffed by at least 14 officers – a level of bureaucracy that IAPS,

reliant as it was on student volunteers, could never hope to make workable.) Thus the only ruling document IAPS had from the 2005 AGM onwards was the Charter, which had itself become somewhat flawed after years of piecemeal revision, and so the decision was made in 2006 to elect a Charter Committee to draw up a new Charter and Regulations and present them to the following AGM.

As it turned out, by 2007 only the Charter was ready, and so it took another year to get both documents in place. In the interim period, a rather unfortunate situation developed whereby a President-Elect was elected despite that post having been abolished with the Regulations, and when, the following year, he did not automatically become President, much ill-feeling was created and there even seemed to be something of a “north-south divide” developing, reflecting the rather more relaxed attitude towards rules and regulations in countries like Italy, Croatia and Romania, as compared to Scandinavia and the UK. Happily, the crisis blew over, and the executive committees from 2007 onwards, free at last of the “Central Office” requirement to have the three main officers all from the same country, have given far more equal representation to these very different groups.

## BRANCHING OUT

Sometimes ICPS is arranged so as to coincide with another conference, such as that of EPS, so that participants can stay on for a few days and visit both. In 2002, when ICPS returned to Budapest, the EPS conference took place immediately after it, and the organisers negotiated a lecture slot at one of the plenary sessions of the senior conference, to be given to the winner of the ICPS “Best Lecture” competition (this was probably something to do with one of the organisers of the EPS conference being a certain Ákos Horváth). EPS saw this as a way of getting more young physicists to attend their event, which was traditionally dominated by elderly professors. Sam Henry, now a lecturer at Oxford University, won the prize that year; he recalls “... presenting my talk to lots of professional physicists in this huge auditorium, with... a camera on me, projecting my image onto a screen behind me, which certainly wasn’t something you got at every conference!”



► *Scientific Excursion: A group visiting the Rutherford Appleton Laboratory during ICPS 2007, London*

IAPS also occasionally ventures into such areas as ethics in science, and science policy. The late Sir Joseph Rotblat (the founder of the Pugwash organisation for scientists concerned about the ethical implications of their work) was an honorary member, and gave a lecture (at the age of 93!) entitled "Preservation of Life in the Nuclear Age," at ICPS 2001 in Dublin; the talk prompted a spontaneous mass signing of the Pugwash Pledge. (Rotblat was remembered at ICPS 2008, which was held in his home country, Poland, in the centenary of his birth, by the showing of a film about his life and Pugwash.) Another honorary member, Sir Arnold Wolfendale, was a guest speaker at ICPS 2000 in Zadar, Croatia, and also sat in on a Round Table discussion of the shortage of jobs for graduates, particularly outside the USA and the former Western Europe. Out of this discussion came a position paper dubbed the "Zadar Manifesto"; it drew attention to the problems faced by physics students in some countries, including "the lack of long-term security" and "lack of autonomy," as well as pointing out that "many physics students are not able to remain in their countries to perform high quality research", and "many ... are not able to remain in their own preferred field." Sir Arnold recalls this being sent to a large number of important bodies, including UNESCO.



► *Costume Party: Mischa Stocklin at ICPS 2006, Bucharest*

Another element of what is now considered to be the standard ICPS format was added, quite late in the day, at the second Coimbra conference (Portugal's third) in 2005: the Costume Party. It immediately became a regular feature, and has produced year after year of toga-wearing Romans as well as many much more ambitious creations. Of course, the conference organisers needed to create a new party because they also lengthened the conference to an unprecedented eight days and seven nights (instead of the more usual seven and six) and needed something for the students to do on the extra evening.

A popular event that year was "Physics on the Beach", which featured outreach activities by Europhysics Fun (EPF) as well as a lot of impromptu experimenting with water waves. 2005 was also, of course, IAPS' 18<sup>th</sup> birthday, celebrated with a huge cake; and at the AGM, Patroklosz Budai, Tamás Fülöp, Ákos Horváth, Péter Lévai and Péter Ván were made honorary members.

# CONCLUSION

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This account is necessarily incomplete, because IAPS and ICPS are still making history. Hopefully someone else will take up the thread in a few years' time and write the next chapter. For now, though, I cannot think of a better conclusion than the following words taken from the ICSP 1986 handbook:

*"Our personal outlook would be broadened and improved if we were able to meet students living in another country, from a different cultural background; we could talk, argue, and be more able to understand each other. The younger we are – the easier it is to make friends, and our world needs friendships to live in peace."*

## WHAT THEY SAID ABOUT ICPS

**"Speaking in English to a large international audience was a very important psychological experience that helped me a lot to handle such situations in the future."**  
*(Piotr Hajac, Poland; ICSP 1986)*

**"This was the first conference I went on without my professor. The conference made me grow as an independent researcher."**  
*(Johan Groth, Sweden; ICSP 1987)*

**"The atmosphere of the conferences was very warm and friendly. It impressed me very seriously that, irrespective of linguistic, cultural or other differences, people gather to be together, to scientifically interact, and to cooperate in an open way. It opened my personality a lot, too."**  
*(Tamas Fülöp; ICSP 1986-7, ICPS 1988-90)*

**"It was a kind of adventure: I was a second year student and it was my first Physics Conference and my first trip abroad without my parents. We did know only a few from beyond the Iron Curtain. The Hungarian students were excellent in favoring a wonderful atmosphere of relaxation and affectionate participation. It was a way to experience world unity favored by science beyond borders."**  
*(Luca Fiorani, Italy; ICSP 1986)*

**"IAPS did have a great influence on my career. It was the first time I got to meet a truly international set of peers. I went to three ICPS's, 89 in Freiburg, 90 in Amsterdam and 91 in Vienna. I enjoyed all three of them."**  
*(Csaba Csaki)*

**"You can travel, you have an aim, you meet people, you do physics, you see institutes, you learn a lot. It really changed my life, there were some good friendships and we did something for the community."**  
*(Marton Major)*

**"It was a very very friendly atmosphere; I had no idea what I was going to face ... and seeing all those people, enthusiastic, and having some sort of background, some associations, some institutions made by students by themselves, really enlightened my ideas and literally inflamed me."**  
*(Davide Venturelli, Italy; ICPS 2004-10; IAPS President, 2005-6)*

# POSTSCRIPT: WHERE ARE THEY NOW?

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is a Professor in the Physical Chemistry Division of the Department of Chemistry, Royal Institute of Technology, Teknikringen, in Stockholm, Sweden.

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is Deputy Scientific Director of the KFKI Research Institute for Particle and Nuclear Physics of the Hungarian Academy of Sciences (RMKI), Budapest, and Team Leader of the Hungarian ALICE group.

## ■ PATROKLOSZ BENATOS

(formerly Budai) is a mathematical physicist specialising in game theory; he is an Associate Professor at the University of Illinois, USA and a visiting lecturer at ELTE, Budapest.

## ■ PÉTER VÁN

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## ■ ÁKOS HORVÁTH

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## ■ TAMÁS FÜLÖP

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## ■ CSABA CSÁKI

is a particle theorist at Cornell University in the USA.

## ■ MARTON MAJOR

is at the Technische Universität Darmstadt, Germany.

## ■ MÁRTA NEMÉNYI

is Secretary of the Physics Section of the Hungarian Academy of Sciences.

## ■ ALEXANDER SZALAY

is Alumni Centennial Professor in the Department of Physics & Astronomy, Johns Hopkins University, Baltimore, USA.

## ■ DEZSŐ KISS died in 2001.

## ■ JÓZSEF ZIMÁNYI died in 2006.

## ■ JIM GROZIER

is a postdoctoral research associate in High Energy Physics at University College London, and is the IAPS Archivist.



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Other material obtained from: **interviews** with Patroklosz Benatos, Péter Ván, Tamás Fülöp, Akos Horvath, Péter Lévai, Marton Major, Sam Henry, Davide Venturelli, Andras Zsom and Sir Arnold Wolfendale; also **e-mail** communications from Istvan Furó, Piotr Hajac, Johan Groth, Jonathan Fost, Kathy Sykes and Michael Pienn; *Nexus News*; *JIAPS*; and the IAPS archive.

## PHOTO CREDITS:

ICPS 1988 – Péter Ván; ICPS 1999 – Marton Major; ICPS 2004-6, Budapest photos – Jim Grozier; ICPS 2007 – Job van der Zwan and Marten Veldhuis; ICPS 2008 – Rafal Lalik; ICPS 2010 – Andrej Golubkov.



► The IAPS founders, the author and Marton Major (10<sup>th</sup> President of IAPS and inventor of the National Party) pictured in Budapest in 2010. Left to right: Péter Lévai, Péter Ván, Jim Grozier, Patroklosz Benatos, Ákos Horváth, Tamás Fülöp, Marton Major.

## APPENDIX 1: IAPS OFFICERS

YEAR	PRESIDENT	COUNTRY	SECRETARY	COUNTRY	TREASURER	COUNTRY
1987-08	Patroklosz Budai	Hungary	Tamas Fülöp	Hungary		
1988-09	Patroklosz Budai	Hungary	Tamas Fülöp	Hungary		
1989-90	Patroklosz Budai	Hungary	Tamas Fülöp	Hungary		
1990-91	Patroklosz Budai	Hungary	Csaba Csaki	Hungary	Tamás Hauer	Hungary
1997-92	Bart Blommers	Netherlands	Maarten Bruinsma	Netherlands	Dirk Willem van Gulik	Netherlands
1992-93	Maarten Bruinsma	Netherlands	Sil Baak	Netherlands	Ruud Dirksen	Netherlands
1993-94	Bente Hansen	Denmark	Nanna Nicolaisen	Denmark	Nancy Saksulv	Denmark
1994-95	Bent Grover	Norway	Truls Flatberg	Norway	Ola Bäckström	Norway
1995-96	Ramon de Vries	Netherlands	Olav Frijns	Netherlands	Jorg Janssen	Netherlands
1996-97	Oscar Pleguezuelos Garcia	Spain	Daniel Aguirre Molina	Spain	Francisco Jose Munoz Fernandez	Spain
1997-98	Nigel Harris	UK	Jan Arlt	UK	Sue Jackson	UK
1998-99	Pawel Wrobel	Poland	Michal Zawada	Poland	Beata Toczek	Poland
1999-2000	Marton Major	Hungary	Szaboks Barsanyi	Hungary	Gabor Nemeth	Hungary
2000-01	Patricia Maduro	Portugal	Ana Fernandes	Portugal	Pedro Isidoro	Portugal
2001-02	George Ofori-Boadu	USA	Izabella Santos	USA	Peter Jensen	USA
2002-03	Ana Misevic	Croatia	Vibor Jelic	Croatia	Vedran Surina	Croatia
2003-04	Milla- Karvonen	Finland	Paula Kuokkonen	Finland	Jyrki Martikainen	Finland
2004-05	Annett Thogersen	Norway	Ingvild Thue Jensen	Norway	Filip Nicolaisen	Norway
2005-06	Davide Venturelli	Italy	Carmelo Evoli	Italy	Raffaello Potestio	Italy
2006-07	Ozana Celan	Croatia	Adlan Cehobasic	Croatia	Marko Banusic	Croatia
2007-08	Tomi Pievilainen	Finland	Anne Pawsey	UK	Juha Korpi	Finland
2008-09	Silvia Franklim	Portugal	Jessica Stanley	Ireland	Jelmer Renema	Netherlands
2009-10	Camelia-Florina Florica	Romania	Konrad Schwenke	Germany	Jelmer Renema	Netherlands
2010-11	Camelia-Florina Florica	Romania	Konrad Schwenke	Germany	Jelmer Renema	Netherlands

## APPENDIX 2: CONFERENCE DETAILS

YEAR	HOST NATION	VENUE	MAIN ORGANISER
1986	Hungary	Budapest	Patroklosz Budai
1987	Hungary	Debrecen	Geza Lévy
1988	Czechoslovakia	Prague	Miroslav Blahout
1989	Germany	Freiburg	Lutz Berger
1990	Netherlands	Amsterdam	Jan de Boer
1991	Austria	Vienna	Anton Wenzelhuemer
1992	Portugal	Lisbon	Ricardo Moita
1993	Turkey	Bodrum	Iskender Toz
1994	Russia	St. Petersburg	Alexander Pavlov
1995	Denmark	Copenhagen	Nanna Nicolaisen
1996	Hungary	Szeged	Attila Mészáros
1997	Austria	Vienna	Stephan Witoszynskyj
1998	Portugal	Coimbra	Hugo Natal da Luz
1999	Finland	Helsinki	Antti Lauri
2000	Croatia	Zadar	Hrvoje Mestric
2001	Ireland	Dublin	Brian MacLochlainn
2002	Hungary	Budapest	Andras Lukacs
2003	Denmark	Odense	Christian Janfelt
2004	Serbia and Montenegro	Novi Sad	Ana Predojevic
2005	Portugal	Coimbra	Maria Joao Benquerenca
2006	Romania	Bucharest	Florin Ion
2007	United Kingdom	London	Matthew Mears
2008	Poland	Krakow	Bartek Spak
2009	Croatia	Split	Marko Sever
2010	Austria	Graz	Ralf Gamillscheg

**To BE CONTINUED ...**

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