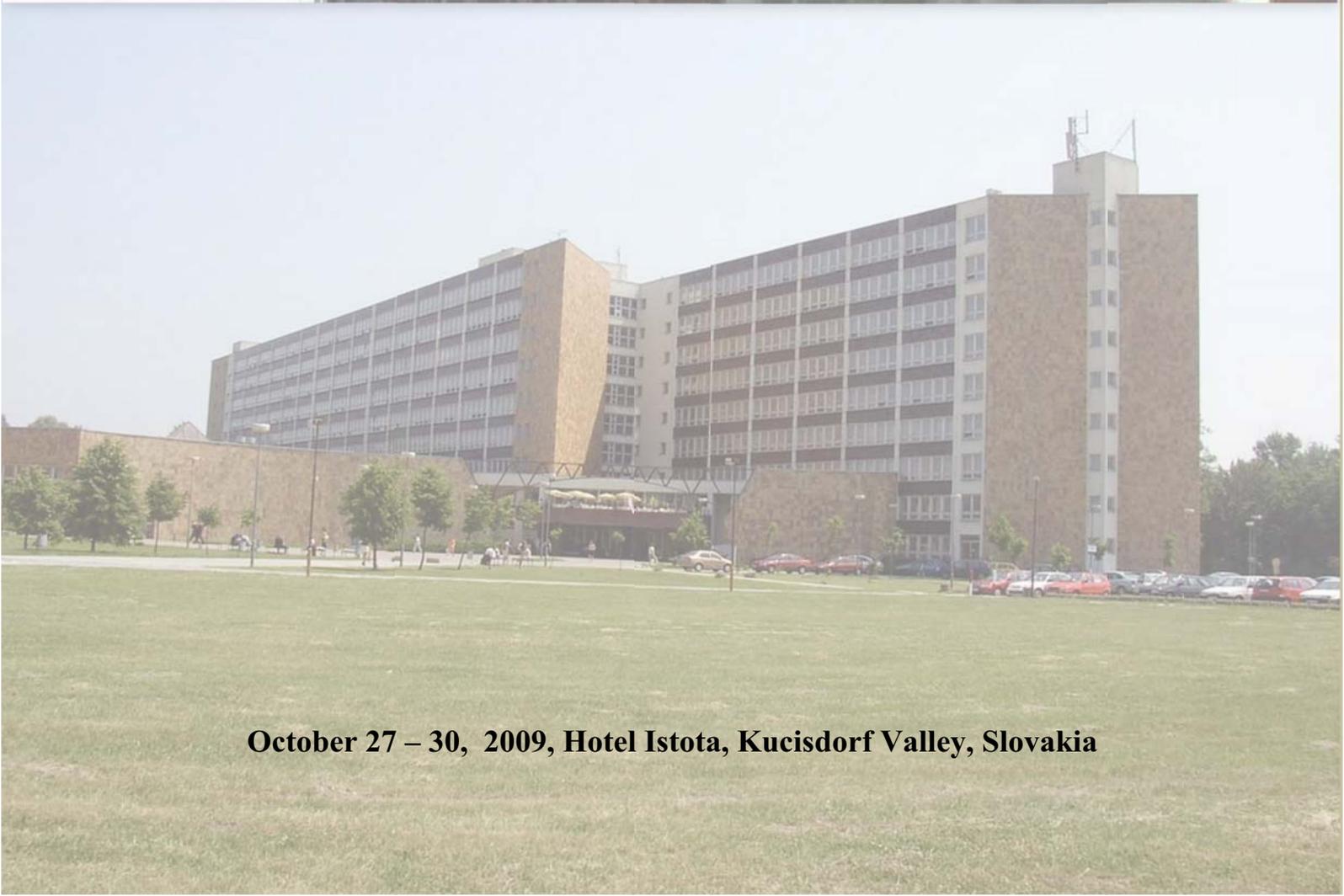


DEPARTMENT OF STATISTICS
FACULTY OF ECONOMIC INFORMATICS
UNIVERSITY OF ECONOMICS IN BRATISLAVA



16th SLOVAK-POLISH-UKRAINIAN
SCIENTIFIC SEMINAR

QUANTITATIVE METHODS IN SOCIO-ECONOMIC ANALYSIS



October 27 – 30, 2009, Hotel Istota, Kucisdorf Valley, Slovakia

16th SLOVAK-POLISH-UKRAINIAN
SCIENTIFIC SEMINAR

QUANTITATIVE METHODS IN SOCIO-ECONOMIC ANALYSIS

October 27 – 30, 2009, Kučišdorfská dolina, Hotel Istota

LIST OF PARTICIPANTS

1. Prof. Dr. habil. Zoya Baranik, Kiev National University of Economics
2. Prof. Dr. habil. Ivan Kopych, Lviv Academy of Commerce
3. Prof. RNDr. Viera Pacáková, PhD., University of Economics in Bratislava
4. Prof. Dr. habil. Anatoly Pidgornyy, Odessa State University
5. Prof. Dr. habil. Anatoly Piljavskyy, Lviv Academy of Commerce
6. Prof. Dr. habil. Józef Pociecha, Cracow University of Economics
7. Prof. Dr. habil. Viktor Shevchuk, Lviv Academy of Commerce
8. Prof. Dr. habil. Antonina Sidorova, Donetsk National University
9. Prof. Ing. Milan Terek, PhD., University of Economics in Bratislava
10. Prof. Dr. habil. Vasyl Yeleiko, Lviv Academy of Commerce
11. Prof. UEK, Dr. habil. Pavel Lula, Cracow University of Economics
12. Ass. Prof. Sergey Vashaiev, Kiev National University of Economics
13. doc. Ing. Zuzana Finková, PhD., University of Economics in Bratislava
14. doc. Ing. Ľubica Hrnčiarová, PhD., University of Economics in Bratislava
15. doc. Ing. Ružena Pardelová, PhD., University of Economics in Bratislava
16. doc. RNDr. Eva Rublíková, PhD., University of Economics in Bratislava
17. doc. Ing. Eva Sodomová, PhD., University of Economics in Bratislava
18. Dr. habil. Barbara Pawelek, Cracow University of Economics
19. Ing. Soňa Coss, PhD., University of Economics in Bratislava
20. Ing. RNDr. Adriana Horníková, PhD., University of Economics in Bratislava
21. Ing. Ľubica Hurbánková, PhD., University of Economics in Bratislava
22. RNDr. Eva Kotlebová, PhD., University of Economics in Bratislava
23. RNDr. Viera Labudová, PhD., University of Economics in Bratislava
24. Dr. Janusz Niezgoda, Cracow University of Economics
25. Dr. Marcin Salamaga, Cracow University of Economics
26. Dr. Ewa Soja, Cracow University of Economics
27. Ing. Ľubica Šipková, PhD., University of Economics in Bratislava
28. RNDr. Daniela Sivašová, PhD., University of Economics in Bratislava
29. Dr. Slawomir Śmiech, Cracow University of Economics
30. Mgr. Erik Šoltés, PhD., University of Economics in Bratislava
31. Dr. Pawel Ulman, Cracow University of Economics
32. Ing. Mária Vojtková, PhD., University of Economics in Bratislava
33. DR. Stanislaw Wanat, Cracow University of Economics
34. Ing. Ján Bolgáč, University of Economics in Bratislava
35. Ing. Katarína Sušienková, University of Economics in Bratislava
36. Ing. Arne Čakl, University of Economics in Bratislava
37. Ing. Peter Ďurka University of Economics in Bratislava
38. Ing. František Foltán, University of Economics in Bratislava
39. Ing. Zuzana Ilavská, University of Economics in Bratislava
40. Ing. Nguyen Dinh He, University of Economics in Bratislava

PROGRAMME

Tuesday October 27, 2009

17:00-18:00 Arrival to Kucisdorf Valley, lodgings and supper
19:00 Departure to Modra

Wednesday October 28, 2009

08:00-09:00 **Breakfast**
09:00-09:05 Opening by **EVA SODOMOVÁ**,
Head of the Department of Statistics of the
University of Economics in Bratislava
09:05-09:20 Opening Address to the 16th Meeting of the
Seminar by **RUDOLF SIVÁK**, Rector of
University of Economics in Bratislava

Chairman of the Session: **VIERA PACÁKOVÁ**,
University of Economics in Bratislava

09:20-09:35 **PAWEL LULA**,
Cracow University of Economics
*“Ontology-based text analysis and its applications
in management”*

09.35-09.40 Discussion

09.40-09.55 **VASYL YELEIKO, IVAN KOPYCH, OKSANA
PENTSAK**, Lvov Academy of Commerce
*“Economic-Mathematical Modelling of Credit
Risks with the Use of the Theory Fuzzy Set”*

09.55-10.00 Discussion

10.00-10.15 **JÓZEF POCIECHA**,
Cracow University of Economics
*“Bankruptcy Prediction – Theoretical and Practical
Conditions of Its Accuracy”*

10.15-10.20 Discussion

10.20- 11.00 **Coffee Break**

Chairman of the Session: **ZOYA BARANIK,**
Kyiv National Economic University

11.00-11.15 **ANTONINA SIDOROVA,**
Donetsk National University
*“Statistical Research of Efficiency of Ukrainian
Banks Activity in Crisis”*

11.15-11.20 Discussion

11.20-11.35 **STANISLAW WANAT,**
Cracow University of Economics
*“Some aspects of dependence modeling in the
process of risk aggregation in insurance”*

11.35-11.40 Discussion

11.40-11.55 **ANATOLY PILYAVSKY,**
Lvov Academy of Commerce
*“Performance banks in Ukraine in global financial
crisis”*

11.55-12.00 Discussion

12.00-13.00 **Lunch**

Chairman of the Session: **JÓZEF POCIECHA,**
Cracow University of Economics

13.00-13.15 **ANATOLII PIDGORNYI, OLGA MILASHKO,**
Odessa National Economic University
*“Analysis of Macroeconomic Proportions on Basis
of NEA”*

13.15-13.20 Discussion

13.20-13.35 **BARBARA PAWELEK,**
Cracow University of Economics
*“The pro-, anti and acyclic factors in the opinion of
entrepreneurs on the basis of test of business
tendency survey in industry”*

13.35-13.40 Discussion

13.40-13.55	IGOR MANTSUROV, SERGII VASHCHAIEV, Kyiv National Economic University <i>“Statistical Estimation of Small-scale Enterprises Activity on Basis of Production Function”</i>
13.55-14.00	Discussion
14.00-14.50	Coffee Break
<u>Chairman of the Session:</u>	MILAN TEREK, University of Economics in Bratislava
14.50-15.05	PAWEL ULMAN, Cracow University of Economics <i>“Incomes of the Polish Rural Households”</i>
15.05-15.10	Discussion
15.10-15.25	ĽUBICA SIPKOVÁ, University of Economics in Bratislava <i>“The Gender Gap in Slovakia According to SILC Data“</i>
15.25-15.30	Discussion
15.30-15.45	JOLANTA KURKIEWICZ, EWA SOJA, MARCIN STONAWSKI, Cracow University of Economics <i>“Companies and Public Institutions In the Context of Population Ageing In Poland”</i>
15.45-15.50	Discussion
18.00	Ceremonial Supper

Thursday October 29, 2009

08:00-09:00

Breakfast

Chairman of the Session:

ANATOLII PIDGORNYI,
Odessa National Economic University

09.00-09.15

SHEVCHUK VICTOR, KOPYCH ROMAN,
Lvov Academy of Commerce
*“Capital Mobility and the Budget Deficit
Macroeconomic Effects in the Central European
Countries”*

09:15-09:20

Discussion

09.20-09.35

MARCIN SALAMAGA,
Cracow University of Economics
*“An Application of Correspondence Analysis In the
Research of Export Competitiveness in European
Union Countries”*

09:35-09:40

Discussion

09.40-09.55

SLAWOMIR ŚMIECH,
Cracow University of Economics
“Adoption of EURO and the GDP Growth”

09.55-10.00

Discussion

10.00-10.45

Coffee break

Chairman of the Session:

RUŽENA PARDELOVÁ,
University of Economics in Bratislava

10.45-11.00

ZOYA BARANIK,
Kyiv National Economic University
*“Statistical Estimation Influence of Population
Structure Factors on Levels of Employment and
Unemployment”*

11.00-11.05

Discussion

11.05-11.20	MICHAL MAJOR, JANUSZ NIEZGODA, Cracow University of Economics <i>“Cost Analysis of the Operational System of Quality Control in Case of Alternative Estimation of the Product Property”</i>
11.20-11.25	Discussion
11.25-11.40	ADRIANA HORNÍKOVÁ, University of Economics in Bratislava <i>“New Trends in Design of Experiments”</i>
11.40-11.45	Discussion
12.00 -13.00	Lunch
13:00	Departure to Bradlo Excursion on the monument Bradlo and museum M.R.Štefánika in Košariská
17:00	Supper Dinner in the peasant curia „U Juhása"

Friday October 30, 2009

08:00-08:45	Breakfast
09:00-11:00	Departure to Bratislava (Visit of the University of Economics in Bratislava, meeting with the Rector of the University of Economics in Bratislava)
11:00-12:00	Lunch
12:00	Bratislava sight-seeing



Bratislava

Bratislava (German: Pressburg, Hungarian: Pozsony) is the capital of the Slovak Republic and, with a population of about 429,000, also the country's largest city. Bratislava is in southwestern Slovakia on both banks of the Danube River. Bordering Austria and Hungary, it is the only national capital that borders two independent countries, and it and Vienna are the two European national capitals closest to one another, at less than 60 kilometres apart.

Bratislava is the political, cultural, and economic centre of Slovakia. It is the seat of the Slovak president, the parliament, and the executive branch of the government. It is home to several universities, museums, theatres, galleries and other important cultural and educational institutions. Many of Slovakia's large businesses and financial institutions are also headquartered there.

The history of the city, long known by the German name Pressburg, has been strongly influenced by people of different nations, namely by Austrians, Czechs, Germans, Hungarians, Jews, and Slovaks. The city was the capital of the Kingdom of Hungary under the Habsburg Monarchy from 1536 to 1783 and has been home to many Slovak, Hungarian, and German historical figures.

Bratislava Castle

One of the most prominent structures in the city is Bratislava Castle, on a plateau 85 metres above the Danube. The castle hill site has been inhabited since the transition period between the Stone and Bronze ages and has been the acropolis of a Celtic town, part of the Roman Limes Romanus, a huge Slavic fortified settlement, and a political, military and religious centre for Great Moravia. A stone castle was not constructed until the 10th century, when the area was part of the Kingdom of Hungary. The castle was converted into a Gothic anti-Hussite fortress under Sigismund of Luxemburg in 1430, became a Renaissance castle in 1562, and was rebuilt in 1649 in the baroque style. Under Queen Maria Theresa, the castle became a prestigious royal seat. In 1811, the castle was inadvertently destroyed by fire and lay in ruins until the 1950s, when it was rebuilt mostly in its former Theresan style. The castle is temporarily closed for reconstruction at the moment.

St. Martin's Cathedral

The St. Martin's Cathedral (Slovak: Katedrála svätého Martina) is a cathedral in Slovakia's capital, Bratislava. It is situated at the western border of the historical city center below Bratislava Castle. It is the largest and finest, as well as one of the oldest churches in Bratislava, known especially for previously being the coronation church of the Kingdom of Hungary. Currently, it is the cathedral of the Archdiocese of Bratislava. From 1995 to February 2008 it was the concathedral of the Archdiocese of Bratislava-Trnava.

Slavín

Slavín in Bratislava is a memorial monument and cemetery for Soviet Army soldiers who fell during World War II while liberating the city of Bratislava in April 1945 from the Nazi German troops. It is situated on a hill amidst a rich villa quarter of the Capital and embassy residencies close to the centre of Bratislava.

This grandiose monument and cemetery of soldiers of the Soviet Army who were killed in deliverance of Bratislava during the Second World War, has been designated the National Cultural Monument. On top of the 39,1 meter high pylon stands an 11 meter high sculpture of soldier by A. Trizuljak. The bronze caisson door of the memorial auditorium is decorated with reliefs by R. Pribiš. The monument was dedicated in 1960 on the occasion of the 15th anniversary of the deliverance of the city by the Soviet army. In the close cemetery are buried 6845 soldiers. Exactly 63 years after the war, this monument represents the city Lucenec as one of the important cities by acquirement of freedom and the peace. On its walls we can see legend of cities with dates of their deliverance.

It was constructed between 1957 and 1960 on the site of a field cemetery, and opened on April 3, 1960 on the occasion of the 15th anniversary of the city's liberation. The monument was constructed similar in kind to the Palace of Culture and Science in Stalinist architectural style. In 1961 it was declared a National Cultural Monument. Its designer was Ján Svetlík.

Milan Rastislav Štefánik

(July 21, 1880 in Košariská – May 4, 1919 in Ivanka pri Dunaji) was a Slovak politician, diplomat, and astronomer. During World War I, he was General of the French army, at the same time the Czechoslovak Minister of War, one of the leading members of the Czechoslovak National Council (i.e. resistance government), and he contributed decisively to the cause of Czechoslovak sovereignty. (The status of Czech- and Slovak-populated territories, among others, was in question until shortly before the disintegration of Austria-Hungary in 1918.)

Štefánik's personal motto was: To Believe, To Love and To Work (Veriť, milovať, pracovať).

Štefánik was born in Košariská, Kingdom of Hungary, on July 21, 1880. He had 12 brothers and sisters (2 of which died early). His father was a local Protestant Lutheran pastor called Pavol Štefánik and his mother name was Albertína Jurenková. As a strong Slovak patriot, he had troubles at Hungarian schools (Slovak ones were prohibited due to active Magyarization) and had to change the high school several times (Pressburg, Sopron, Szarvas).

In 1898, he began studying construction engineering in Prague. In 1900 he moved to the Charles University where he attended lectures in astronomy, physics, optics, mathematics and philosophy. In the 1902 summer semester he was at university in Zürich. The Prague years had a great impact on Štefánik, because he met many important personalities there: the philosophy lectures were taught by Tomáš Masaryk (the future first president of Czechoslovakia), who inspired Štefánik with the idea of cooperation of the Czechs and the Slovaks. Furthermore, Štefánik very actively participated in the work of the Slovak student association Detvan (and within Detvan of the so-called Hlasists group) where he became acquainted with Vavro Šrobár. His studies were largely financed by Czech associations including Československá jednota (Czechoslovak Unity) and Radhošť - he himself could not afford them. In Prague, he wrote political and artistic texts, in which he tried to inform the Czechs of the disastrous situation of the Slovaks at that time. He graduated in 1904 with a doctor's degree in philosophy and with thorough knowledge of astronomy (he finished his studies with a thesis in astronomy). He wrote his thesis about a star which was discovered in the Cassiopeia constellation in 1572.

France, Tahiti and other countries

In 1904, he went to Paris to find a job in astronomy with the recommendation of a Czech professor who was known in Paris. Initially, he had no money and no command of French, but then he got a job at the famous Observatoire de Paris-Meudon, whose director, Pierre Janssen (one of the co-founders of astrophysics), saw Štefánik's talent. Štefánik owed to Janssen and Camille Flammarion his social, political and scientific career. The observatory was the most important centre for astronomy at this time which meant a huge prestige in his job.

Between 20 June and 4 July in 1905, Štefánik climbed Mont Blanc (later he climbed it several times) in order to observe the Moon and Mars from it. Then he took part in an official French expedition which observed and recorded a whole eclipse of the Sun in Alcossebre in Spain. Thereby he established his own recognition in the French scientific society. He worked with Gaston Millochau who was a member of the Académie Française, so some of its members read from his work. -His studies and the results of his observations were published in reports to the Académie Française and he received several awards for them - Later he was invited to an international astronomer conference in Oxford which was interested in research of the Sun. Between 1906 and 1908, he was co-director of Mont Blanc observatories Plc (joint-stock company).

At the end of 1907, however, Pierre Janssen died and Štefánik had to change his job. Since 1908, he had been charged by the French authorities with astronomic and meteorological observations (mainly observations of sun eclipses) and political tasks in various countries all over the world including (Algeria, Marokko, Turkestan, Russia, India, the USA, Panama, Brazil, Ecuador, Australia, Tasmania, New Zealand, Tahiti, Fiji and Tonga). In Tahiti, he also built an observatory and a meteorological stations network. Between these voyages he regularly returned home to Košariská (the last time in 1913 for his father's funeral). When he was in South America (especially in Galapagos Islands in Ecuador), he had an opportunity to show his diplomatic skills for the first time.

Štefánik dealt with astrophysics, solar physics and became well-known for his spectral analysis of the sun's corona. He was involved in perfecting spectrography and has been considered a predecessor of Bernard Lyot. He also attempted to construct a machine for color photography and cinematography and had his design patented in 1911.

In addition to his scientific missions overseas, he also performed diplomatic tasks. He established contacts and friendship with leading scientific, artistic, political, diplomatic and business personalities. He participated in the establishment of business enterprises in France and other countries. His friends were Henri Poincaré physicist, count Eugène Aymar de la Baume, Joseph Vallot (who was the richest man in France), Gustave Eiffel architect, prince



Roland Bonaparte, Camille Chautemps Prime-Minister, a French big entrepreneur called Devousoud from Chamonix, Simon Newcomb American astronomer and admiral, David Jayne Hill American diplomat. In 1912, he received French citizenship, recognition and access to the French elite. In 1914, he was made a Grand Officer of the Legion of Honour. At the same time, however, he had some personal problems and a serious stomach illness (which did not get better even after a medical operation). Moreover, World War I started in Europe.

World War I and struggle for "independence"

Štefánik understood that a defeat of Austria-Hungary (and Germany) in this war meant a chance for the Slovaks and Czechs to gain independence from Austria-Hungary. Therefore, he insisted on participating in the war as an aviator (of the French army). After a short training, he was sent as a pilot to Serbia in May 1915. He flew a total of 30 missions to enemy territories. Finally he survived, but could not fight anymore, so that he returned to Paris at the end of 1915.

Back in Paris, he became acquainted with Edvard Beneš and got into contact with his former professor Tomáš Masaryk. In 1916, these three men founded the Czechoslovak National Council (the supreme body – government - of Czecho-Slovak resistance abroad leading to the creation of Czechoslovakia in 1918). Since 1917, he was the vice-president of the council. Thanks to his diplomatic skills, Štefánik helped Masaryk and Beneš to meet and obtain the support of some of the most important personalities of the Triple Entente. He for example organized Masaryk's meeting with the French prime minister Aristide Briand.

In 1916, Štefánik and the Czecho-Slovak resistance started to create Czechoslovak troops (legions) that would fight against Austria-Hungary and Germany. For this purpose, Štefánik (as the Czechoslovak Minister of War and as a French General) went to Russia and then (in February 1917) to the USA. He also organized legions in France and Italy. It was largely due to his personal diplomatic skills and contacts that the Allies (Entente) recognized the Czechoslovak National Council as a government-de-facto and the Czechoslovak troops as allied forces in the summer and autumn 1918. In May 1918, Štefánik went to Siberia in Russia, where he was supposed to make the Czechoslovak legions there renew the second, i. e. Eastern, front (because Russia had switched the sides and signed peace with Germany and Austria-Hungary in March 1918, and Czechoslovak legions very successfully rebelled against a subsequent Russian order to disarm, thus showing their abilities to the Allies). But in Russia, Štefánik saw that this was not possible anymore.

In January 1919, when the war ended, Štefánik went from Russia to France and Italy, where he organized the retreat of Czechoslovak troops from Siberia in March in Paris. In addition, his diplomatic skills were needed in order to solve quarrels between the French and Italy missions in Czechoslovakia. In April, he went from Paris to Rome to negotiate at the Italian Ministry of War, where he also met his fiancée Juliana Benzoni for the last time. Then he went to the main Italian military base in Padua, where he agreed with General Armando Diaz on the dissolution of the Italian military mission in Czechoslovakia. At the same time, severe quarrels arose between Štefánik and Beneš (but also Masaryk), mainly around the position of Slovakia within Czechoslovakia. In April, for example, Beneš wrote to a county president in Slovakia: "I had a conflict with Štefánik. . . Everything is over between us. I mean absolutely (over). But keep it totally secret...".

Death

Finally, Štefánik wanted to return home to see his family. He decided to fly from Campoformido by Udine in Italy and to use an Italian military plane, a Caproni 450. On May 4, 1919 around 11am, his plane tried to land near Bratislava (which was a war conflicted area between the First Republic of Czechoslovakia and the Hungarian Soviet Republic at that time), but crashed near Ivanka pri Dunaji. Štefánik died along with two Italian officers. The reason for the plane crash is disputed. The official explanation at that time was that the plane was shot down "accidentally", because its Italian tricolor was mistaken for the Hungarian tricolor.[3] Although this does not have to much probability as Štefánik signed his arrival before but even just at that time Šrobár and his all government left Bratislava to Skálica to plant trees as a memory of the founding of the new Czechoslovak Republic. [3] That's also unlike that[clarification needed] his plane was shot down by Hungarian communists standing on the middle of the Franz Joseph bridge of Bratislava. Štefánik's sudden death in combination with his preceding quarrels with Beneš contributed to Slovak suspicion towards the Czechs during the First Republic of Czechoslovakia.

Štefánik's tomb was built in 1927-28 on the Bradlo hill in Brezová pod Bradlom. The monumental yet austere memorial was designed by Dušan Jurkovič.