

The First Czechoslovak–Polish Optical Conference

The First Czechoslovak-Polish Optical Conference took place in Rusava (Czechoslovakia) on September the 4–8th, 1972, and was organized by the Optical Laboratory, Palacký University in Olomouc, Czechoslovakia, with the cooperation of the Institute of Technical Physics, Technical University of Wrocław, Poland. The initiator of the Conference was Prof. Dr Bedřich Havelka, who strongly declared himself in favour of arranging this kind of optical meeting already in September 1971, during his stay in Poland as a guest of the First Polish Conference on Applied Optics in Bierutowice. Thanks to his enthusiasm and energy this fine idea was realized to the advantage of optics people of both countries.

Principally, the Conference was intended as a forum of exchange of scientific ideas and experiences among scientists working in related fields. The other purpose was to facilitate and encourage the development of personal contacts between the respective specialists and thus both to intensify the existing connections and to bring out new ones. The excellent work done by the organizing Committee with Prof. B. Havelka as its Chairman and his organizing capability, succeeded not only in a complete realization of both the goals but also in creating a warm atmosphere – so important for initial contacting and collaboration.

The papers delivered at the Conference were divided into four thematic groups:

1. Modern Methods of Optical Imaging.
2. Coherent and Statistical Properties of Optical Fields.
3. Optical Properties of Absorbing Media.
4. Principles of Operation of New Optical Systems.

The debate in each section was preceded by a plenary paper delivered by a prominent specialist in the respective field. In particular, the plenary paper in the first section was delivered by M. Gaj (Poland), in the second section by T. Skaliński (Poland), in the third section by A. Vaško (Czechoslovakia) and in the fourth section by E. Kerpt (Czechoslovakia).

Besides, 65 contributed papers were presented on

the authors' own research. The names of the authors as well as the titles of the papers are listed at the end of the paper. The majority of papers presented contain original solutions of different optical problems. Many of them like those dealing with diffraction and propagation of light in anisotropic media, theory of optical imaging, optical spatial filtering, holographic measurement methods, design of optical systems and methods of investigating optical glass properties are of particular importance. Some of the papers selected from those submitted to the Conference which have not been earlier submitted for publication elsewhere, are being published in this issue of the *Optica Applicata*.

The Conference was organized in a beautiful health resort in the uplands. All the participants found this idea to be a very good one, as it facilitated getting in touch with each other any time of the day. The similarity of the Czech, Slovak and Polish languages made the communication very easy after a short training. At the end of the Conference many participants emphasized its usefulness and stimulating influence on the development of optical research in Czechoslovakia and Poland and declared themselves in favour of continuation of this kind of common meetings in the future. It has been also agreed that the next Conferences should be organized every second year alternately in Poland and Czechoslovakia.

Independently, the problem of common publication of optical papers from both countries was also discussed. It has been agreed that the journal *Optica Applicata* is the most suitable for this purpose, the more so, as it is edited in congressional languages and that starting with this year, it will be edited quarterly. A transformation of the journal into a monthly in the further future was also postulated, this seems to be realistic if a sufficient number of high level papers will be available.

Finally, it is my pleasure to emphasize once more that such friendly relations as were established during those six days in Rusava were possible only in the warm and hearty atmosphere which the Organizing Committee succeeded to create.

The Contributed Papers

M. MILER, Geometric Constructions in Holographic Imaging.

I. WILK, An Approach to Direct Recovery in Coherent Imaging.

T. LIPOWIECKI, Z. JANKIEWICZ, A Multiple Coincidence Holographic Method of Obtaining a Number of Dynamic Process Records.

M. J. MATCZAK, Z. KRASKA, An Application of the Holographic Interferometry to Visualize Thermodynamical Processes.

J. KVAPIL, Methods of Optical Hologram Synthesis.

M. GAJ, L. MAGIERA, Modified Smith's Method for an Automatic Correction of Optical Systems.

J. NOWAK, An Analysis of Designing a Superachromatic Objective with Flat Field.

M. GAJ, J. OSIŃSKI, An Analysis of Possibility of Applying the Classical Formulae for the Position of Astigmatic Foci to Decentred Systems Assuming a Small Error of Centricity.

J. POSPIŠIL, V. BUMBA, Report on Measurement of the Modulation Transfer Function of Photographic Materials.

M. LEŚNIEWSKI, Tolerances for Spherical Surfaces of Optical Elements Satisfying the Minimum Manufacture Cost Requirement.

F. WNUCZAK, An Influence of the Mirror Movement on the Image Blurring in the Ultra-High-Speed Cinematography.

J. POLÁŠEK, Image Contour Sharpness and a Possibility of its Photographic Processing.

R. JÓZWICKI, An Influence of the Observer Position with Respect to the Instrument on the Observed Image Quality.

L. BOROWICZ, A. DUBIK, Application of Spatial Frequency Filtering to Measurements, Identification and Coding.

J. KEPRT, Correction of the Spherical Aberration in Polychromatic Light.

J. KOPEČNÝ, M. KOPEČNÁ, Measurement the Second-Order Degree of Laser Beam Coherence

Z. KOZLOVSKÁ, Measurement of the Spatial Coherence Degree for He-Ne Laser Radiation.

K. ROSIŃSKI, S. BAUCH, Atomic State Coherence Stimulated by R.F. Radiation and Optical Absorption.

B. STÁDNÍK, F. HOFF, Use of Distributions in Some Transforms in Optics.

R. NOWICKI, Fluctuations and Methods of Output Power Stabilization for He-Ne Lasers.

W. CHABROS, Rasters Production by Holographic Method.

J. PEŘINA, V. PEŘINOVÁ, On Photon Pulsing Stat-

istics for Light Passed by an Heterogeneous Stochastic Medium.

V. BLAŽEK, Optical Information Processing with a Regenerative Laser-Supplier.

F. PETRŮ, Fundamental Properties of Single-Frequency He-Ne Lasers of Stabilized Frequency and the Length Measurement.

J. KRŠEK, Fundamental Problems in Laser Interferometer Configuration.

B. POPELA, Optical Resonators with Increased Mode Degeneration Excited by a Single-Frequency Laser of Stabilized Frequency.

A. KUJAWSKI, New Results in the Light Propagation and Diffraction in Anisotropic Media.

J. NĚMEC, A Contribution to the Technique of Absorption Filter Calculation.

J. HORÁK, A. VAŠKO, D. VAŠKOVÁ, Reflection Spectra of Monocrystals Sb_2Te_3 Doped with Iodine and Germanium Respectively.

S. KOZIKOWSKI, On Some Proposals of Applying the Holographic Technique to Both the Semiconductor Junction Measurement and the Microelectronic Technology.

M. ZÁVĚTOVÁ, Absorption Edge of Glassy As_2Te_3 .

K. BRUDZEWSKI, Influence of Surface Roughness on the Ellipsometric Parameters.

E. IDCZAK, Optical Constants of Nontransparent Chromium Layers for Wave-Length Range 0.22–25 μ m.

L. PAJASOVÁ, Reflection Spectra of GeS in Ultraviolet Range in Vacuo.

R. KOWALCZYK, An Influence of the Layer Thickness on the Dielectric Characteristics of Interference Filter of Two-Half-Wave Layers.

I. GREGORA, Optical Phonons and Lattice Dynamic of $CdAs_2$.

R. RATAJCZYK, Some Remarks on Tolerating Material Failures and Their Connections with Imaging Quality.

V. VORLÍČEK, Absorption Edge of Some Glasses Based on $CdAs_2$.

T. STEFANIAK, Optical Glass Surface Protection Against Corrosion.

J. ROZSYPAL, Joint Measurement of Elastic and Piezoelectric Constants for Transparent Solid Materials by Method of Monochromatic Light Diffraction on Ultrasonic Waves Propagating in These Materials.

J. DOSTÁL, Problem of Uniqueness in Dissymmetric Method of Particle Size Measurement by Light Scattering.

R. BRUNSZ, Optical Attenuator of Wide Regulation Range.

V. MALÍŠEK, Some Application of Group Theory in Raman Spectroscopy.

V. VYŠIN, Application of the Kramers-Kronig Re-

lations in the Optical Activity Theory for Crystals.

V. SOCHOR, Mode Selection in Ion Lasers.

V. SOCHOR, J. BLABLA, A. JELÍNKOVÁ, Laser Excited Emission Spectroscopy of Fluorescein and Rhodamin 6G.

M. RAFAŁOWSKI, Application of Considerably Decentred Spherical Mirrors in Optical Systems of Lens-Mirror Type.

L. DABERGEROVÁ, On an Interferometer for Spherical Optical Surface Control.

J. SZUKALSKI, Electric Magnitudes Measurement by Optical Methods.

J. DABERGER, An Arrangement for Objective Quality Examination of Projection Objectives.

S. PRACKI, Some Problems in Industrial Viewer Design and Their Application.

J. BIELSKI, M. ZARZYCKA, Quality Criteria for Enlargers and Enlarger Objectives.

M. JIRÁČEK, Some Problems in Holographic Memory Arrangements.

J. JASNY, A. PRAXMEYER, S. PŁOCHARSKI, Objective Measurement of Focal Length.

J. ZICHA, An Arrangement for Automatic Focusing and Aiming Control for Astronomical Telescopes.

A. CHOJNACKA, T. KRYSZCZYŃSKI, Two-Component

Pantratic Optical System with a Direct Image and Linear Movement of Elements.

M. PLUTA, Stereoscopic Method of Depth Measurement under the Microscope.

V. BLUMOVÁ, Some Photometric Properties of the Systems of Imperfect Polarizers.

M. DASZKIEWICZ, An Improvement of the Instrumental Extinction in the Microscope by Apodizing the Condensor.

J. SÍMA, A Calorimeter for Laser Energy Measurement.

R. PAWLUCZYK, Holographic Microscope with Coherent Noise Elimination.

M. CHOMÁT, Use of Photochromatic CaF₂ for Holographic Setup Stability Examination.

Z. PUZEWICZ, Z. JANKIEWICZ, J. SZYDLAK, W. NOWAKOWSKI, E. STEFANIUK, Electrooptical Switches.

J. OBADÁLEK, An Electrooptical Method for Immediate Measurement of Temperature Difference at Two Points.

M. RYSKALOK, K. GABLA, An Atomic Beam Apparatus with a Magnetoelectric High Sensitivity Microbalance (10^{-7} G) for Measuring Structure Parameters by the Absorption Method.