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INTERNATIONAL YEAR OF LIGHT AND LIGHT-BASED TECHNOLOGIES  
Ceremonial closing of the International Year of Light and Light-based Technologies

Ivan Lalov: Maxwell and the First *Great Unification* in Physics

MAXWELL AND THE FIRST *GREAT UNIFICATION* IN PHYSICS

(150 years of the Electromagnetic Theory of Light)

Ivan Lalov

Abstract

The year 2015 was declared by United Nations as the „Year of light and light-based technologies” and we note 150<sup>th</sup> anniversary of the electromagnetic theory of light discovered by great physicist J. C. Maxwell. The paper is devoted to his short biography and to his general achievements: a) Maxwell equations of the electromagnetic field; b) great unification of electromagnetism and optics; c) Maxwell statistics of gases; d) several important experiments and experimental methodics. The cultural and scientific legacy of Maxwell includes also the foundation of Cambridge H. Cavendish Laboratory.

## SCIENCE POLICY

Lidia Galabova: Bulgarian Innovation Policy and Human Capital

### BULGARIAN INNOVATION POLICY AND HUMAN CAPITAL

Lidia Galabova

#### Abstract

The overarching aim of this paper is based on Bulgarian innovation policy and strategy analysis and former empirical studies, to characterise the current innovation system of Bulgaria and the prospects for its further development from the perspective of human capital and innovation. The paper also presents some good practices on a firm level, aiming to prove that when human capital and wellbeing are acknowledged, properly managed and developed the desired innovativeness and economic growth are achieved. Provided relevant policies are in place these good practices can be transferred among larger number of Bulgarian firms thus improving the overall innovation competitiveness index of the country. In this paper, the author argues that to achieve the goal of developing an effective and efficient knowledge based economy a broader view of the national innovation system is needed, acknowledging the crucial impact of human capital to the economic growth and innovation development. Further, urgent dedicated measures impacting on human capital growing, development and retention are required in order to ensure its sustainability. These include development of coherent policies on education, research and innovation, as well as wellbeing, care and health.

## SCIENCE AND SECURITY

Petar Marinov, Elena Vaicheva–Nestorova: Islam – an Argument of the Islamic State

### ISLAM – AN ARGUMENT OF THE ISLAMIC STATE

Petar Marinov, Elena Vaicheva–Nestorova

#### Abstract

#### **I. The Battle Flag – Islam**

The Islam is a monotheistic and avraamistic religion based on a holy book named Koran. The Islam followers consider their religion fundamental and fully accomplished. Since 9 century AD, the Great Madrassa (in Kairo) has recommended an understanding of „Jihad” as „holy war which the believer must wage inside himself”. In spite of this fact, at present we have become witnesses of manipulation and usage of Islam as a justification of terrorism. There is a serious danger that these distorted considerations will gain wide publicity and cause religious strife and confrontations. That is why we have to try to understand the true foundations and essence of Islam.

Key words: Islam, terrorism, religion, Jihad, fundamentalism

#### **II. Islamic State – genesis and development**

The Islamic State (IS) is a Sunni terroristic group which occupies territories in North-East Syria, West and North Iraq, some parts in Libya, North-East Nigeria and at the same time pretends for areas in Palestine, Lebanon, Israel, Jordan, Cyprus and parts of Turkey (Hatay). Islamic State is a new threat and a challenge for the regional and global security. It has its own specific characteristics and could neither be added to the already-known radical Islamic terroristic groups, nor to be recognized just as the „next phase” of the terroristic „evolution”. The IS existence poses a variety of questions for discussion in front of researchers, whose answers will allow better understanding of the true nature of IS – „State”, criminal organization, terroristic group or a new phenomenon undergoing permanent development.

Key words: Islamic State, terrorism, Radical Islam, Daesh, security.

## SCIENCE AND ETHICS

Ivan Zagorchev: The Review in Natural Sciences

### THE REVIEW IN NATURAL SCIENCES

Ivan Zagorchev

#### Abstract

Ethics is one of the principal requirements for successful reviewing. The impartial and professional review plays an important part in science in stimulating publication of important results of the scientific research in a most comprehensive form. The impartial review of scientific project proposals is an important tool for financing the best projects, and for performing of fruitful science research at a modern level. The fair review of a thesis has a decisive role for the formation of the young scientist, and for his future progress in science. Habilitation is largely dependent on the fair impartial and just reviews by the referees thus enabling to stimulate the best scientists in their life and research path. In all these cases, referees should not only be at the height of their duties, and follow the rules of science ethics but also watch for the implementation of ethics' rules in the reviewed scientific products.

Borislav Gradinarov: Scientific Reviewing – between Filter and Censorship  
SCIENTIFIC REVIEWING – BETWEEN THE FILTER AND CENSORSHIP

Borislav Gradinarov

Abstract

Adequate evaluation of scientific discoveries, contributions or concepts becomes a problem from the moment in which science acquires institutional dimensions, i. e. from calling it becomes a profession. The guiding principle today is that the scientist should be judged by people who have similar qualification („peer review”).

The degree of trust to the objectivity of scientific evaluation, however, is inversely proportional to the interest of the evaluation of this particular scientific work to be published or suppressed, protected or not (for example, if it comes to a thesis). The interest of the evaluator is influenced by many factors. The greatest weight among them is the commercialization of science.

Keywords: Scientific assessment, scientific credibility, trust, interest, commercialization of science, sources of financing science.

Chavdar Kolev: „Visitng the Devil” through Expert Scientific Assessments  
„VISITNG THE DEVIL” WITH SCIENTIFIC EXPERT ASSESMENTS

Chavdar Kolev

Abstrect

This article is dedicated to the perverse behavior of some scientists who, put themselves satservice of corporate interests through pseudo-scientific statements while their actions ruin science’s prestige in general. My personal experience in construction science and practice is in use here. I am analyzing the approach which replaces the truth and arguments by illogical claims of changed perspective due to insufficient competences of employees who do the expertises and take the decisions. The results of ignoring scientific facts and cognitation lead to expensive and wrong processes and practices.

Another aspect of the problem is the superficial formal approach and the „mirror” approach of those who have to admit scientific expertises. Often plagiarismorexaggerating of someone’s statement prevail the common sense.

I have made a comparison with best practices in developed countries, where the scientist’s prestige is in evitably accompanied by objective arguments for the thesis put forward in the presentation. Many scientific principles of action abroad are opposite of those considered normal locally.

Here with, I am also proposing logical pattern for clinical approach while doing expert assessments in the construction.

Evgeniya Rusinova: Fictitious and Deliberate Reviewing

FICTITIOUSLY AND DELIBERATELY REVIEWING

Evgeniya Rusinova

Abstract

The article examines two negative trends in the field of scientific criticism: fictitiously and deliberately reviewing.

The first concept considers the cases where the author of the review is not the person whose name is used. The second is about the tendentiously one-sided examination of some work. These are practices with mercenary motives to obtain certain benefits and respectively - of purposefully highlighting the negative aspects and rarely the positive moments (in the latter).

The observed cases are from the field of social sciences and humanities sciences, and concern both the reviewing of published texts and the evaluation of competitive works (theses, etc.).

## INTERDISCIPLINARY STUDIES

Diana Kjurkchieva et al.: The Menhirs around Tsarev brod, Shumen region

### DISCOVERY AND INVESTIGATION OF EXTRASOLAR PLANETS USING A NETWORK OF SPACE TELESCOPES

Veselka Radeva, Irena Dimitrova, Borislava Borisova, Tsveta Kodjabasheva, Kristiana Momchilova

#### Abstract

We present the idea for the creation of a network of small space telescopes for the discovery and investigation of near extrasolar planets. Models of five extrasolar planets selected based on several criteria have been made. The necessity for the development and the launch of space missions with small satellites - telescopes is justified. The goals, tasks and timeline of a possible future space mission for the launch and work of a network of small space telescopes are described.

## LANGUAGE PROBLEMS

Anna Choleva-Dimitrova, Boryan Yanev: Trends in Forenames. Tendencies

TRENDS OF FORENAMES. TENDENCIES

Anna Choleva-Dimitrova, Boryan Yanev

Abstract

The study aims to present the current state of the Bulgarian system of personal first names. 18 600 names of new-borns in the biggest cities of Bulgaria - Sofia, Plovdiv and Varna in a period of five years have been analyzed. The largest cities were chosen with a clear motivation that there live representatives from the whole territory of Bulgaria, and the number of newborns is biggest. Only names of newborn boys and girls were studied, as the names of the youngest representatives of our nation will outline the trends for the image forming of the Bulgarian anthroponomical system in the course of time.

Key words: mode, first names, motivation, new-borns, largest cities of Bulgaria

## THE FLOOR TO THE YOUNG PEOPLE

Veselka Radeva et al.: Discovery and Investigation of Extrasolar Planets using a Network of Space Telescopes

### DISCOVERY AND INVESTIGATION OF EXTRASOLAR PLANETS USING A NETWORK OF SPACE TELESCOPES

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