

CONTENTS

No.	Titles / Authors	page	No.
1	<p style="text-align: center;">关于微观粒子波动图象的再思考</p> <p style="text-align: center;">杨发成 新疆 克拉玛依市 瑞达中心 834000 e-mail: yangfacheng2006@163.com, yangfacheng6467@sohu.com</p> <p>摘要：在光学实验中，使用涨落有序的相干光束通过干涉仪，发现了干涉条纹。在近代光学理论中认为，光是一种波，所以它才能发生干涉。作者研究认为，条纹的产生并不是光的波动性，而是大量光粒子作用下的统计结果。本文从粒子观点出发，运用惠更斯包络面概念、以及点光源辐射产生球形包络面观点，将相邻包络面之间的实际距离等同于近代光学理论中的“波长”进行研究，结合图象进行运算，结果得出了与波动理论完全相同的数学表达式。如果本文的试探性研究能成立，理论对于实践来说，向前推进了一大步。[Academia Arena, 2010;2(9):1-5]. (ISSN 1553-992X).</p> <p>关键词：相干光；点光源；次光源；元光源；球形包络面；几何程差；光程差；狭缝元</p>	Full Text	1
2	<p style="text-align: center;">数学神童陶哲轩</p> <p style="text-align: center;">齐林泉 y-tx@163.com</p> <p>摘要：陶哲轩，今天世界顶尖的华裔数学家之一。陶哲轩任职的加州大学洛杉矶分校，数学系前主任约翰·加内特评论陶哲轩说：他是一个令人难以置信的天才，还可能是目前世界上最好的数学家。他总能将复杂的数学问题化繁为简，世界上最出色的数学家都喜欢和他一同工作，他与合作者能够组建成世界上最强大的数学系。[Academia Arena, 2010;2(9):6-8]. (ISSN 1553-992X).</p> <p>关键词：陶哲轩; 华裔; 数学</p>	Full Text	2
3	<p style="text-align: center;">李杨谈得诺贝尔奖的方法之一（摘要）</p> <p style="text-align: center;">杨振宁 (Sent by 王德奎 y-tx@163.com)</p> <p>摘要：赝标量，是物理学中的一个观念，它确是化解 - 谜，最重要的钥匙。关于宇称不守恒的工作、关于 衰变怎么搞进了 - 谜，关键观念与战略，是怎样产生与发展的？宇称不守</p>	Full Text	3

	<p>恒文章，是怎样写出来的？场合适当，一定要把真相写出来。在 1954-1956年间，讨论 - 谜的文献中，赧标量起先完全没有出现，第一次出现于文献，就是在 1956年 10月李和的那篇后来得奖的文章中，这篇文章定稿于该年 6月 22日。[Academia Arena, 2010;2(9):9-13]. (ISSN 1553-992X).</p> <p>编者按：获得诺贝尔奖的方法有很多，如有大师的培养；追踪参与热点、难点的研究讨论等等，但其中最重要的方法之一是读书。研究功夫到了火候的阶段，李政道教授说的是，顿悟突破，至少要能读到一本切实火候的好书；杨振宁教授说的是，顿悟定格，至少要能读到一些切实国际热点、难点进展的好书。</p> <p>关键词：赧标量；物理学； - 谜；宇称不守恒； 衰变</p>		
4	<p style="text-align: center;">一种有趣的数学现象（上）</p> <p style="text-align: center;">谭天荣</p> <p style="text-align: center;">青岛大学 物理系 青岛 210100111</p> <p style="text-align: center;">y-tx@163.com</p> <p>内容提要：在张量形式下，三维空间的静磁学方程与四维时空的电磁学方程是一样的。根据这种相似性，从静电学方程可得到另一组四维时空的场论方程，从而导致如下猜测：第一，除了引力场论及电磁场论以外，自然界还有第三种场论。第二，这种场论描述核子之间的相互作用。[Academia Arena, 2010;2(9):14-20]. (ISSN 1553-992X).</p> <p>关键词：静磁学；电磁学；张量方程；引力场论；静电学；库仑定律</p>	Full Text	4
5	<p style="text-align: center;">一种有趣的数学现象（下）</p> <p style="text-align: center;">谭天荣</p> <p style="text-align: center;">青岛大学物理系青岛 266071</p> <p style="text-align: center;">y-tx@163.com</p> <p>内容提要：在张量方程的形式下，描写三维空间的曲线坐标的方程与描写四维时空的非惯性参照系的方程是一样的。本文从这种相似性出发，揭示惯性力的特征；并通过对等效原理的重新表述，展开一个具有如下特征新的引力场论：第一，等效原理是它的逻辑结论；第二，通过“引力场张量”的概念，与牛顿引力定律紧密衔接；第三，理论结构简单而自然，按照这种理论，引力与自然界的其他力的在数学结构方面并没有特别迥异之处。[Academia Arena, 2010;2(9):21-28]. (ISSN 1553-992X).</p>	Full Text	5

	关键词： 曲线坐标；非惯性参照系；惯性力；爱因斯坦；等效原理；引力场论		
6	<p>Title- Morphological and Isozyme diversity in the accessions of two cultivated species of barnyard millet</p> <p>Deepti prabha* Ph.D., Deptt. of Seed Science and technology, College of Agriculture, G. B. Pant University of Ag. and Tech, U. S. Nagar (Uttarakhand), India</p> <p>Y. K. Negi Lecturer, Deptt. of Microbiology, SBS PG Institute of biomedical Sciences and Research, Balawala, Dehradun (Uttarakhand), India</p> <p>V. K. Khanna Proffessor, Deptt. of Genetics and Plant Breeding, College of Agriculture, G. B. Pant University of Ag. and Tech, U. S. Nagar (Uttarakhand), India</p> <p>deepti_prabha@rediffmail.com</p> <p>Abstract: Present study was conducted to access genetic diversity among 33 accessions of two cultivated species of barnyard millet i.e., <i>Echinochloa crus-galli</i> (15 accessions) and <i>E. frumentacea</i> (18 accessions). Though crop possesses great nutritional value, little attention has been paid for the improvement of this crop. Peroxidase and esterase analysis showed seven loci possessing 23 alleles in all 33 accessions. Esterase was found to be more useful to assess diversity with more polymorphism in comparison to peroxidase. Based on allozyme frequencies, all the accessions of both the species were grouped separately in to two different groups at a linkage distance of 6.2. The data would be important in detailing the level of variation and relationship within and between species to plan future domestication trials and to manage the wild species collection that is available in the gene banks. [Academia Arena, 2010;2(9):29-34]. (ISSN 1553-992X).</p> <p>Key words: Barnyard millet, genetic diversity, isozyme analysis, peroxidase, esterase</p>	Full Text	6
7	<p>Comparative Study of the Antimicrobial Activity of Chlorinated and Non-chlorinated Antiseptics against <i>C. albicans</i></p> <p>*Adijat Olabisi Atayese¹, Hyacinth Izuka Effedua², Kolawole Sunday Oritogun², Kehinde Titilope Kareem³, Afolabi Ogunledun²</p> <p>¹Department of Microbiology, College of Natural Sciences, University of Agriculture, Abeokuta. P.O. Box 2240, Abeokuta, Ogun State, Nigeria. ²Department of Medical Microbiology& Parasitology, College of Health Sciences, Olabisi Onabanjo University, P.O. Box 657, Sagamu, Ogun State, Nigeria. ³Citrus Research Programme, National Horticultura Research Institute, Ibadan, P.M.B 5432, Jericho, Idi-Ishin, Ibadan, Nigeria. e-mail: bisatfeb14@yahoo.com</p> <p>Abstract: The efficacy of chlorinated and non- chlorinated antiseptics on <i>Candida albicans</i> is still not completely elucidated. Hence the general objective of this study is to determine the anti-candidal efficacy of nine commonly available antiseptics with chlorine (Purit, Savlon, Robert, Septol, Xylol and Dettol) and three without chlorine (Spring Mint, TCP and A.M.P.M.). The organism was challenged with diluted (according to the manufacturers instruction) of each of the antiseptics for a period between 30 seconds and 180 seconds and the microbial cell reduction rates were determined at every 30seconds contact by Time kill Test. The undiluted antiseptics with chlorine revealed 100% reduction in C.</p>	Full Text	7

	<p><i>albicans</i> cell count at 60secs contact time for Purit and Savlon while at 90secs undiluted Robert, Septol, Xylol and Dettol produced the same 100% lethal effect. Spring Mint, TCP and A.M.P.M. without chlorine did not produce significant cell reduction even at 180secs just like the control. Purit and Savlon, diluted according to the manufacturer's recommendations produced 100% cell reduction at 120 and 150secs respectively while Robert, Septol, Xylol and Dettol were able to produce 93.8% and 96.1% cell reduction at 180secs. Also, the pH of the antiseptics had significant association with their efficacy on <i>Candida albicans</i> ($\chi^2=3.54$, $P < 0.05$). It is concluded that chlorination and pH of antiseptics has significant effect on the efficacy of antiseptics against <i>C. albicans</i>. [Academia Arena, 2010;2(9):35-40]. (ISSN 1553-992X).</p> <p>Keywords: <i>Candida albicans</i>, Antiseptics, Efficacy, Time Kill Test</p>		
8	<p>Factors Influencing the Use of Fertilizer in Arable Crop Production Among Smallholder Farmers In Owerri Agricultural Zone of Imo State</p> <p>¹Amanze Blessing, ²Eze Christopher Chiedozie and ³Eze Victoria</p> <p>¹Department of Agricultural Economics, Extension and Rural Development Evan Enwerem University, Owerri, pmb 2000, Imo State, Nigeria. blessingamanze@yahoo.co.uk +2348035699643</p> <p>²Department of Agricultural Economics, Federal University of Technology Owerri, P.M.B 1526 Owerri , Imo State, Nigeria . chriseze2003@yahoo.com +2348033807761</p> <p>³Imo State Ministry of Agriculture and Natural Resources, Owerri, Imo State, Nigeria. ezechinedumv@yahoo.com +2348033782588</p> <p>Abstract: The study evaluated the factors influencing the use of fertilizer in arable crop production among smallholder farmers in Owerri Agricultural Zone of Imo State. The objectives determined factors influencing the use of fertilizer in arable crop production among smallholder farmers, and determined socio-economic characteristics of smallholder arable crop production farmers in the study area. A multistage random sampling technique was adopted in selecting six Local Government Areas (LGAs), two community from each selected LGA, two villages from each selected communities and five farmers from each selected village. Data were collected with the aid of a well-structured questionnaire from one hundred and twelve farmers. Data were analyzed using frequency distribution, and logistic regression analysis. Results of the analysis showed that output of crop, level of education, farm size and price of fertilizer were important factors influencing farmers' use of fertilizer in arable crop production while gender, age and household size were not. The result further showed that the average age of the farmers were 54.3years, 52.7% of them were males. The farmers spent about 8.5years in school and 20.6 years was their average farming experience. They have an average farm size of 1.3ha and household size of 7persons. The number of extension contact per month was twice. [Academia Arena, 2010;2(9):41-49]. (ISSN 1553-992X).</p> <p>Key words: Fertilizer use, arable crops , smallholder farmers, Nigeria</p>	Full Text	8
9	<p>弦膜圈说回采大爆炸前宇宙位于虫洞</p> <p>-- 关于弦膜圈说纯数学问题的思考</p> <p>习强</p> <p>y-tx@163.com</p>	Full Text	9

	<p>摘要：波普瓦夫斯基的研究确实很妙，图像也很清晰。但我们认为，英文的物理学家组织网与《科学》杂志在线版的报道，和中文的张梦然文章的介绍，只能算是对宇宙弦膜圈说纯数学的一种“求科普”解释，因为他们的这种文章，并不能等同于波普瓦夫斯基的原文。[Academia Arena, 2010;2(9):50-58]. (ISSN 1553-992X).</p> <p>关键词：弦膜圈说 纯数学 大爆炸理论</p>		
10	<p style="text-align: center;">对加速系物理学的再考察</p> <p style="text-align: center;">谭天荣 青岛大学物理系青岛 266071</p> <p style="text-align: center;">y-tx@163.com</p> <p>内容提要：在相对论中，加速系的物理学方程由四维时空的曲线坐标给出，与黎曼几何无关。根据这一前提，找到了惯性力的协变规律；重新表述了“等效原理”；并展开了一个新的引力场论。此外，还在此基础上指出广义相对论的几个逻辑上的漏洞。[Academia Arena, 2010;2(9):59-68]. (ISSN 1553-992X).</p> <p>关键词：曲线坐标；加速系；惯性力；爱因斯坦；等效原理；引力场论</p>	Full Text	10
11	<p style="text-align: center;">中国未来的 3 种发展前景: 中国的内外危机顶峰的 2012 年，中美今后 10 年的冲激烈突</p> <p style="text-align: center;">张 洞 生</p> <p style="text-align: center;">1957 年毕业于北京航空学院,即现在的北京航空航天大学 Email: zhangds12@hotmail.com</p> <p>【内容摘要】：由于金融危机对世界各国经济政治产生的巨大影响，使中国从 2010 到 2020 年的国内外的政经济环境发生了巨大的改变，中国过去 30 年来靠劳动密集型的廉价低端出口产品和基本建设投资拉动经济发展的模式已经走到尽头，内忧外患，危机重重。中国正处在 3 岔路口，有 3 种可能的发展前景。然而中国今后只有将现有的“劫贫济富”的经济发展模式改变为“抑富助贫”，调整收入分配结构，即回到走邓小平的“共同富裕”的道路，才是正确的方向和前景，才能避免日后造成社会的大动乱，而转危为安。但首要问题是要克服“特殊利益集团”的阻扰。[Academia Arena, 2010;2(9):69-81]. (ISSN 1553-992X).</p> <p>【关键词】：中国社会的“贫富对立”、“官民对立”和“黑（社会）民对立”；转变经济发展方式；调整经济结构的；调整收入分配结构；2012 年中共 18 大；中国的特殊利益集团；中国党内的 3 股力量和未来的 3 种发展前景</p>	Full Text	11
12	<p style="text-align: center;">An Investigation of Iran's adobe glaciers</p> <p style="text-align: center;">Kazem Yavarinasab</p> <p style="text-align: center;">No 3, Masjed Aezam alley, Naiemabad St. Yazd, Iran, Postal Code: 891673491 Phone: +98351-8252734&+983518236830&+983518223709; Mobile: 09132746803</p> <p>Abstract: Governing principles of all adobe glaciers are identical ant thus ice should remain insulated and dry. [Academia Arena, 2010;2(9):82-89]. (ISSN 1553-992X).</p> <p>Keywords: adobe glacier, adobe, reservoir, caravansary, thatch, shady wall, Icepreparing-basin, Ice storehouse, storehouse dome, ribbing, arch, sewage</p>	Full Text	12