



國立臺灣師範大學
NATIONAL TAIWAN NORMAL UNIVERSITY

IYPT magazine

progress report

by Wen-Chin Lin
2013/08/01, NTNU



<http://www.ntnu.edu.tw>

Outline

- **Brief introduction:**
why need IYPT magazine?
⇒ purposes, readers, organizers....
- **Progress report:**
logo, cover page, paper review, format of articles
⇒ 1st issue ⇒ 2nd issue (End of 2013)
- **Future work:**
International reviewers (IOC-member)
Worldwide submissions



Why do we need IYPT magazine?

- **Scientific paper writing** is an important step in research. IYPT-Magazine will help IYPT students to develop the capability of English scientific paper writing.
- **Solutions of IYPT problems** can be publicly reported and discussed. It will leave valuable literatures for future study of IYPT problems.
- **Another stage for IYPT students**, who did not have chance to show their efforts on the physics problems during IYPT competition.
- **Activity reports:** IYPT-Magazine also provides an international platform for the participant countries to present the worldwide IYPT-related activities and exchange ideas of Physics/Science education.



- **Official magazine of IYPT**

(Approved by EC-meeting)

- **Content:**

- Invited papers:**

- EC-members, IOC-members
team leaders, jury, professors, teachers...

- Submitted papers:**

- High school student & teachers
undergraduate students ...

- **Process:**

- Paper review & revision

- Cover page design & content editing



IYPT magazine

- **Official magazine of IYPT**
- **Language:** English
- **Advisory board:** Executive Committee Members of IYPT
- **Editorial board:** Physics department, NTNU
- **Aim:**

In order to advance the physics education to the globe collaborations, the IYPT magazine is a place to share the brilliant solutions of IYPT problems and what one has learned from IYPT competitions.



- **Content:** The first part publishes invited articles from professor/team leader/organizer/EC/IOC member, while the second part are solutions to IYPT problems.
- **Readership:** physicists, undergraduates, high school students and teachers, lay people who interest in physical science worldwide IYPT participants (professors, high school teachers & students, undergraduates and etc.)
- **Potential reader:** every high school teachers and students who are interested in exploring physical phenomenon, especially when preparing for science exhibition/competition.
- **Community :** more than **40** countries attend IYPT. Hundreds to thousands of teachers/students join IYPT in each country. (Besides of IPHO, IYPT is one of the largest international physics competition in the world.)



- **Publish & Distribution:** 1-2 volumes per year. Paper prints will be annually distributed during IYPT to the participants from 25-30 countries.
- **Future plan:**
 - (a) 1-3 years: regular issues with contributions from 25-30 countries.
 - (b) 3-5 years: publish of books regarding the IYPT problems & solutions.
 - (c) 5-8 years: IYPT magazine becomes the first and most important periodical publication for young scientist/students. Many of the published Physical problem/solution or ideas of science education can be spread out worldwide through IYPT magazine.



Editors :

Prof. Wen-Chin, Lin (Chief editor)
Prof. Yung-Yuan, Hsu (Associate editor)
Prof. Jung-Ren, Huang (Associate editor)
Prof. Fang-Yuh, Lo (Associate editor)
Prof. Chi-Ta, Chia (Consultant)

Department of Physics,
National Taiwan Normal University



Official IYPT magazine: link from IYPT website



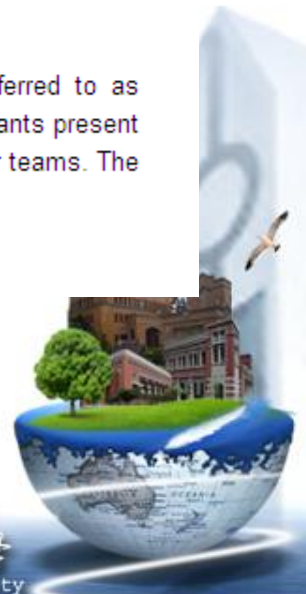
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Search

International Young Physicists' Tournament

Welcome to the official website of the International Young Physicists' Tournament. The IYPT, sometimes also referred to as "Physics World Cup" is a team-oriented scientific competition among teams of secondary school students. The participants present their solutions to scientific problems they have prepared over several months and then discuss their solutions with other teams. The roles of Reporter (Presentation), Opponent and Reviewer are graded by a jury consisting of international experts.

[IYPT 2012 in Germany](#) | [IYPT 2013 in Taiwan](#) | [Problems](#) | [IYPT Archive](#) | [Magazine](#) | [Book](#)



IYPT magazine website: online submission & review



1st issue ~ 4 invited articles:

INVITED ARTICLES

Inquiry-based science education

Alan Allinson

Influence of IYPT on participating students

Martin Plesch

A few words about the Young Physicists' Tournament

Evgeny Yunosov

A glimpse into the history, development, and educational expertise of the IYPT

Ilya Martchenko



1st issue ~ 14 submitted articles:

SUBMITTED ARTICLES

2010 PROBLEM 11 : Sand
**WHAT DETERMINES ITS
SOFTNESS**

*Ningyue Wang
Jin Zhou*

2010 problem 5 : Car
Car powered by a balloon

*Xinhe Yang
Xuewei Cao*

**2010 problem 12 :
BREAKING SPAGHETTI**
Find the conditions under
which dry spaghetti falling on
a hard floor does not break

*Xinhe Yang
Xuewei Cao*

**2012 Problem 9 :
Magnet and Coin**
A magnetic coin's motion
under a magnetic field

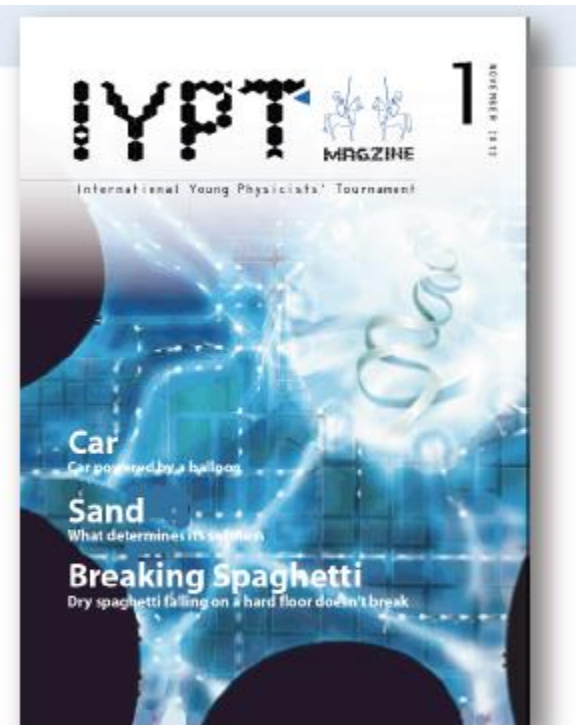
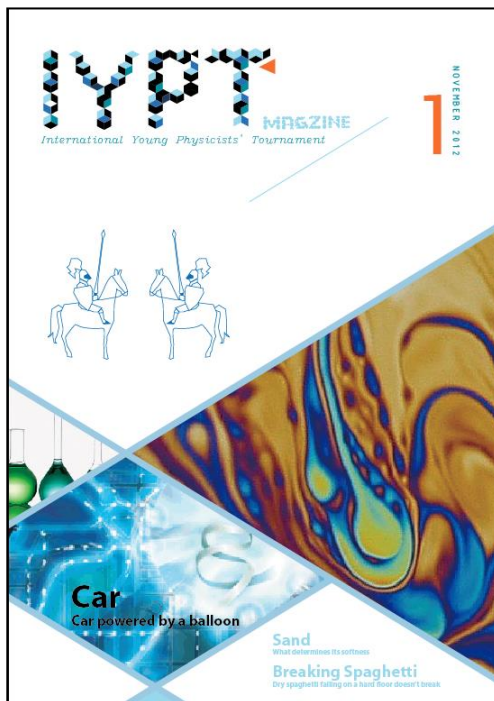
*Kun-Jen Hsueh
Hsiao-Hung Chen*

2010 Problem 3 : Steel Balls
Colliding two large steel balls
with a thin sheet in between

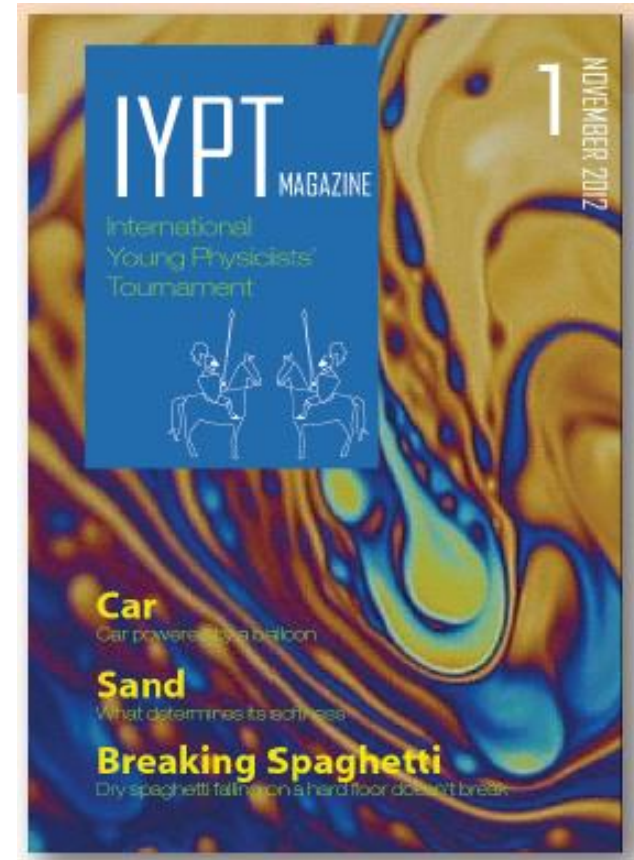
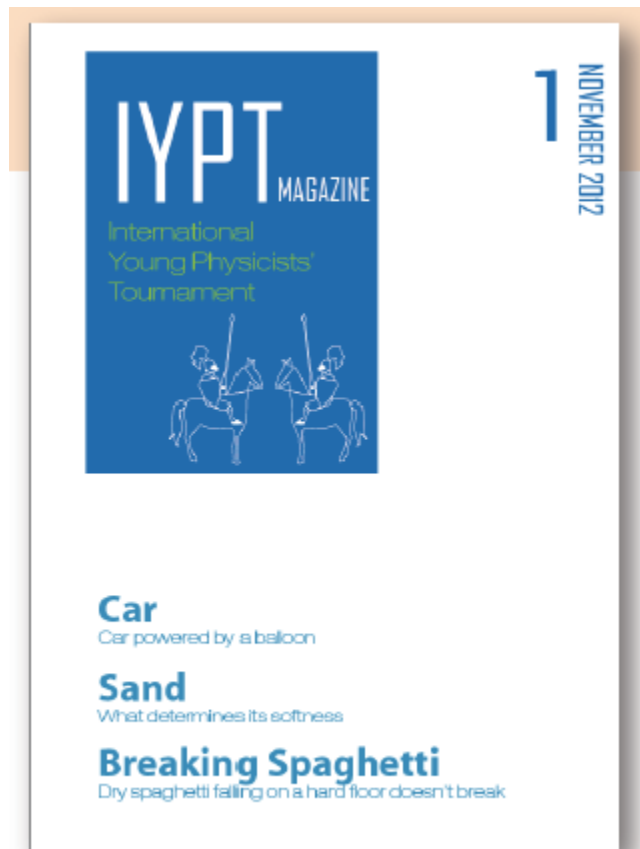
*Cheng-Jui Tsai
Yu-Chen Lin²
Wei-Shen Chen*



Designs of cover page ____ Morden



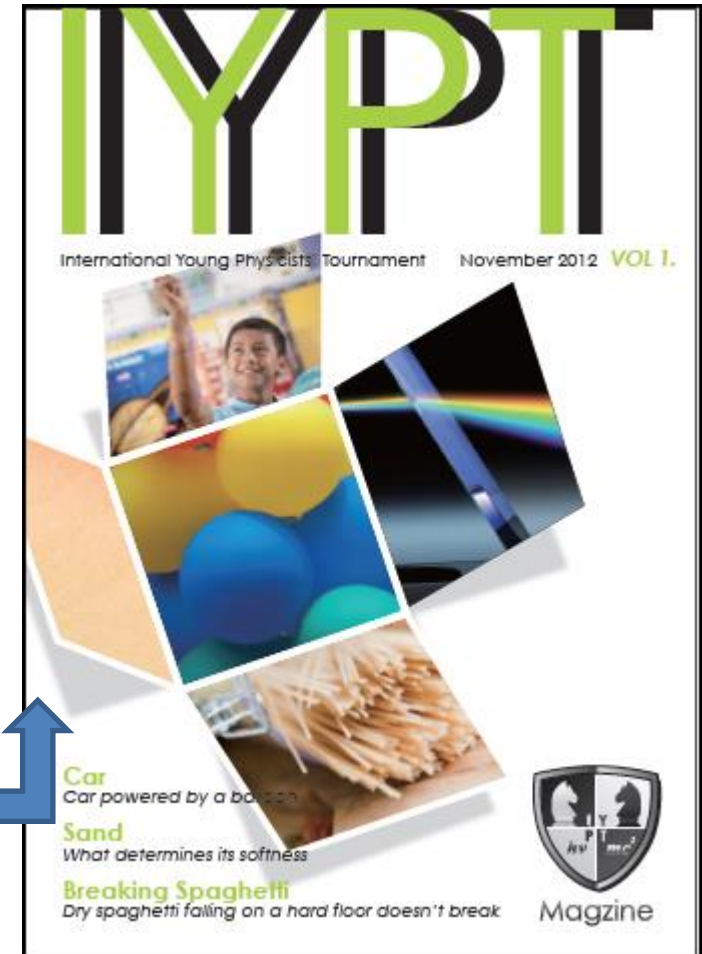
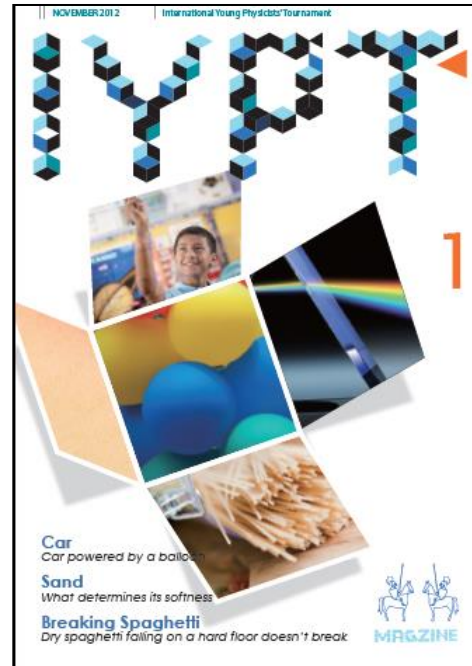
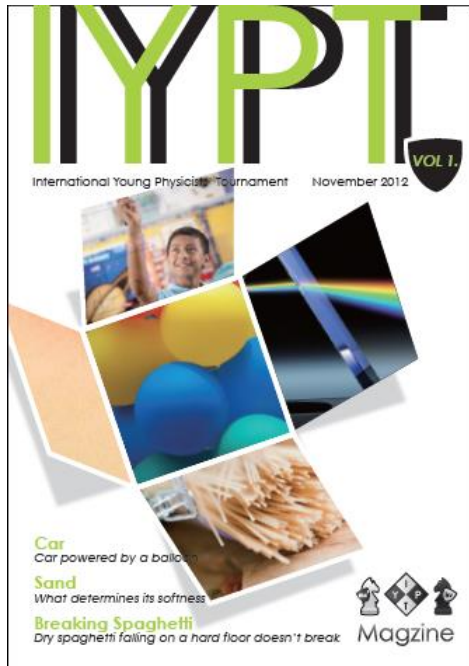
Designs of cover page ____ Elegant



Designs of cover page ____ Classic



Designs of cover page ____ Young & Active



Opened box: discovering the physics inside
Pictures changed: according to the submitted papers

Logo of IYPT magazine___ Young & Active



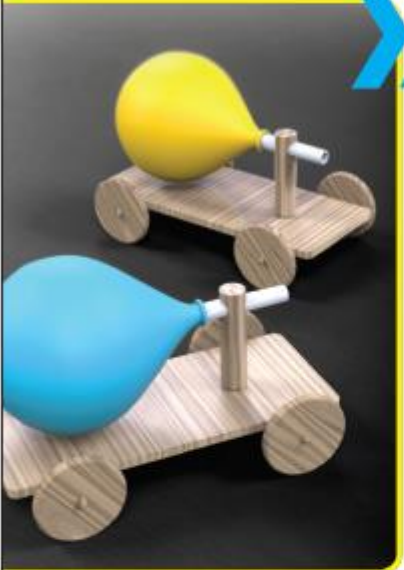
IYPT badge

⇔ Honor & Spirit



For submitted papers

Main figure
of this experiment
(provided by authors,
or made by editors)



2010 problem 5 : Car
powered by a balloon

41

2010 IYPT problem 5

ABSTRACT

This article mainly solved the distance traveled by the car which powered by a spherical balloon, an equation of relevant parameters to determine the distance was derived. In experiment part, a toy car is designed. Three variables were controlled, the radius of the balloon, the radius of the vent and the angle of the vent inclination. The distance increased exponentially with the increment of radius. There is a maximum value of distance when the radius of vent increasing. The distance decreased with the increment of the angle. The result of the experiment fitted the theory well.

Keywords

car, balloon, distance.

Introduction

A car powered by a balloon is a very attractive problem among students all around. This kind of problem is also list in IYPT before. The distance it travels depends on many parameters such as balloon, gears, wheels and so on. Many people studied the problem of the inflation, deflation and reinflation of a single balloon[2]. The pressure in the balloon when inflating and deflating[3]. The damage and the healing of the balloon when inflating and deflating[4]. They also studied the difference between the spherical and cylindrical balloon[5]. The elastic instability of balloon is also discussed[6]. But few of them have analyzed the problem of the car. In order to solve the problem the car is divided into two parts, one is the power part, the other is the resistance part. We can find the balloon here is very important, because the balloon is the only thing that provides power.

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Authors

Title: IYPT problem
Subtitle:
more description

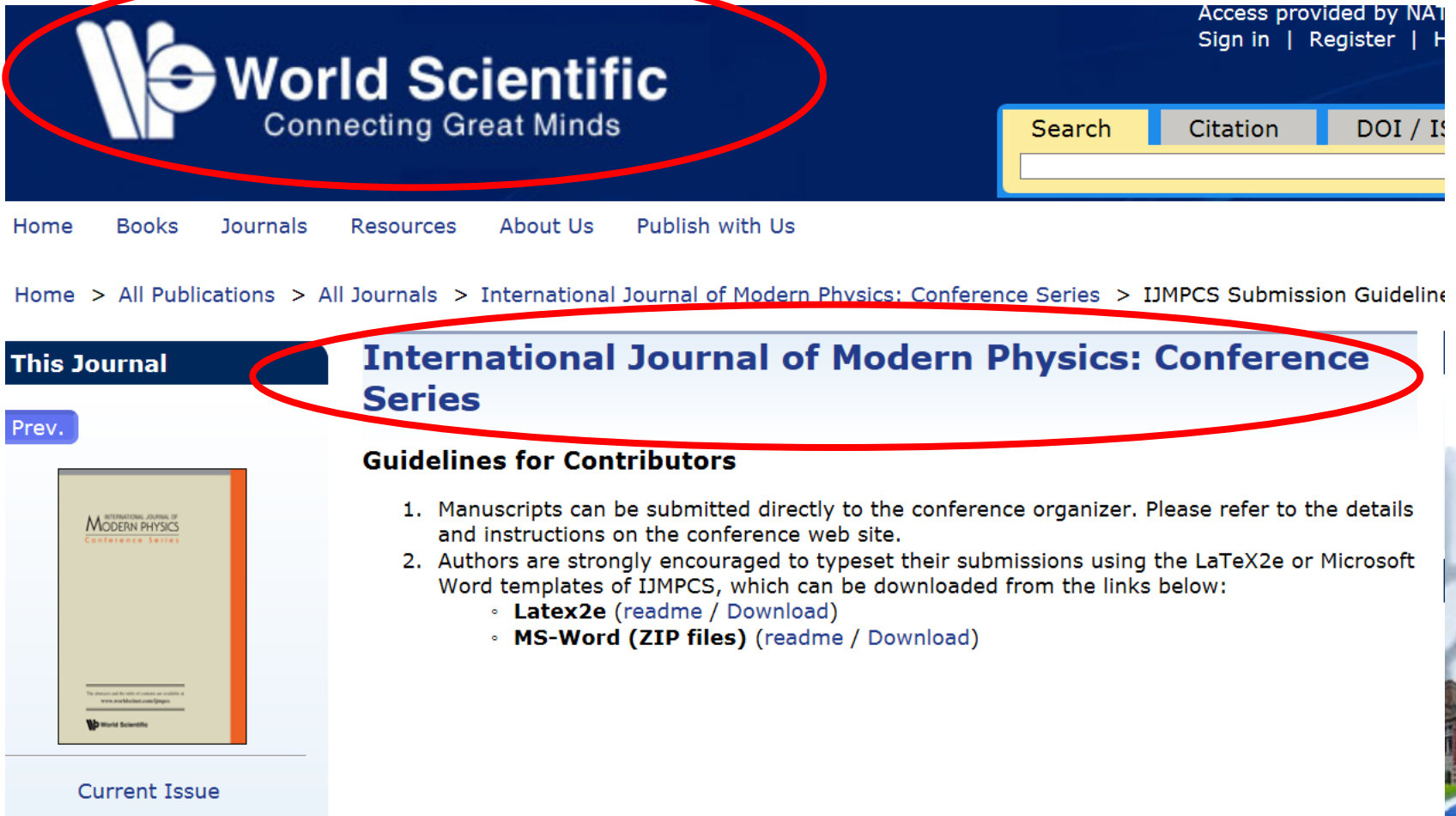
Abstract

Introduction



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Guidelines for Contributors

1. Manuscripts can be submitted directly to the conference organizer. Please refer to the details and instructions on the conference web site.
2. Authors are strongly encouraged to typeset their submissions using the LaTeX2e or Microsoft Word templates of IJMPCS, which can be downloaded from the links below:
 - **Latex2e** ([readme](#) / [Download](#))
 - **MS-Word (ZIP files)** ([readme](#) / [Download](#))

Current Issue

<http://www.worldscientific.com/page/ijmpcs/submission-guidelines>

We need your join:

- Invite **International Paper Reviewers**
(patient reviewers to guide the young writers)
- Invite **International Paper Submission**
(from worldwide IYPT students)





IYPT Magazine: call for papers

Submission deadline of 2nd Issue: **15/September, 2013**

The IYPT-Magazine is a place to share the brilliant solutions of the seventeen problems suggested by the organization of International Young Physicists' Tournament (IYPT) each year. Although the IYPT competition takes place every year and excellent solutions are presented, it is a pity that these wonderful solutions are mostly not known and distributed. In order to advance the physics education to the globe collaborations, the IYPT-Magazine is designed to publish the written solutions of IYPT problems that are provided by world-class scholars, teachers and students.

Besides, each participant country has its own vision and scope in science education. IYPT magazine also provides an international platform for the participant countries to present the worldwide IYPT-related activities and exchange ideas of Physics/Science education.

1~2 issues of IYPT-Magazine will be published in each year and a reviewing process will be implanted to insure a high quality of publications. The publication of IYPT-Magazine is authorized by Executive Committee of IYPT, and is supported by the National Taiwan Normal University of Taiwan.

Please check the following website of IYPT-Magazine for the details of submission requirements and process.

<http://iyptmag.phy.ntnu.edu.tw>

The submission deadline of the 2nd Issue is **15/September, 2013**.

All of you are welcome to submit your papers concerning either the IYPT solutions or reports of IYPT-related activities.

Please don't hesitate to contact us

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