电机与控制应用论文模板格式

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(1. 单位**（高校作者单位必须具体到院系）**1名称，省份 城市 邮编；2.单位2名称，省份 城市 邮编）

**MS-Word Template for Submission to EMCA** Title in English

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**Abstract:** **[Objective]** Write clearly what problem the paper is aimed at, and propose relevant strategies to solve the problem. **[Methods]** A detailed description of the theoretical and experimental methods used in the paper. **[Results]** Based on simulation, fitting data, etc., the results are obtained. **[Conclusion]** Based on the above results, reliable and credible conclusions are analyzed. Content of abstract should be literal translation from the Chinese version. Passive voice and simple present tense are strongly recommended.**（英文要求为中文的直译，句型力求简单，尽量用被动态，要求一般现在时。注：英文摘要不少于250词）**

**Key words:** A; B; C; D（首字母小写）

**摘 要**：**[目的]**写清楚论文针对什么问题，提出相关策略解决问题。**[方法]**详细叙述论文使用的理论和实验方法。**[结果]**根据仿真、拟合数据等，计算得到结果。**[结论]**根据上述结果，分析得出可靠可信的结论。摘要内容(摘要以提供论文的内容梗概为目的，不加评论和补充解释，简明、确切地论述研究目的、原理、方法和结论，结构化清晰明了)。如果是综述类的文章，也请作者尽量使用结构式摘要（例如可将摘要划分：目的/意义、分析/评论、结论/展望……）。

**关键词：**甲；乙；丙；丁（4-8个，中英文关键词要求一一对应）

1. 引言（黑体，小四）

正文应按“引言、主要研究内容与结果、结论”划分为几部分，以1.0倍行距双栏排

版、五号宋体(英文用Times New Roman)书写，在每一页的页面底端右边标注页码，以利于编辑、修改。

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参考文献采用阿拉伯数字根据全文统一编号，在正文中引用时用右上角标标出。

引言中不要出现图、表和公式。层次标题一律用阿拉伯数字连续编号；不同层次的数字之间用小圆点相隔，末位数字不加标点符号，如“1”“1.1”等。

1. 一级标题

## 二级标题

* + 1. 三级标题

图、表、公式双栏排版不利于表达时，可采用单栏排版。正文中的图、表、公式一律采用阿拉伯数字编号，例如图1、表2、式(6)等。

1. 图表的格式说明

## 2.1 图的格式描述

1. 单幅曲线图或照片图尺寸一般以

5 cm×7 cm为宜。照片图给出时，删去不必要的信息，保证图中所有的文字清晰可辨。坐标图请给出所有坐标的物理量和单位。

1. 本刊为黑白印刷，不能很好地区分颜色。如果图中涉及颜色区分问题，请修改图标、线型或放大坐标，避免影响表达。
2. 同线型区分并在图中空白处用中文说明线型与曲线的对应关系或引出短线

标注清楚。

1. 图中存在坐标系时，须标清横、纵坐标并给出量的单位，按如下格式标注：时间/s或*t*/s。
2. 图中物理量的符号与文中公式的表达（正/斜、上/下角等）必须一致。
3. 图、表中仅使用中文（可使用符号、

数量及英文缩写词）。

1. 图（表）随文排，位于文中出现与该图（表）相关内容的正文之后。
2. 图标要求均需双语表达，见示例。

## 2.2 图的格式示例

图在正文中的格式示例如图1所示。



（a）示例1



（b）示例2

**图1 样式**

**Fig.1 Sample**

## 2.3 表的格式示例

表在正文中的常用格式如表1所示。

**表1 表在正文中的常用格式**

**Tab.1 The usual form of table in a paper**

|  |  |
| --- | --- |
| 表头不可为空 | 表头不可为空 |
| 参数名称 | 参数值 |
| 参数名称 | 参数值 |

1. 公式的格式说明

## 3.1 公式的格式示例

公式不能是图片格式。以下供参考。

$T\_{e}=\frac{3}{2}p[ψ\_{f}i\_{q}+\left(L\_{d}-L\_{q}\right)i\_{d}i\_{q}]$ (1)

式中：*T*e为电磁转矩；p为极对数；$ψ\_{f}$为永

磁体磁链；*iq*为交轴电流；*Ld*、*Lq*为直轴、

交轴电感；*id*为交轴电流。

## 3.2 公式的格式描述

1. 使用MathType公式编辑器。公式整行右对齐，并调整公式与公式序号之间的

距离，使公式部分居中显示；如公式太长需在符号处转行，转行时关系符号和运算符号应位于上行末，下行首不再重复。

1. 公式书写应规范，公式中的物理量应前后一致并能互相区分。公式中首次出现的物理量应按示例公式中的格式说明其含义，注意区分大小写、正斜体及上下角标。
2. 文中所用的物理量符号，表示矩阵和向量（矢量）的需用黑斜（粗斜）体表示，要与标量区别开。
3. 参考文献的格式说明

非综述文章参考文献数量应在20篇以上，时间需为最近5年以内，且建议引用2篇以上我刊近2年论文作为参考文献；综述文章参考文献数量至少应在50篇以上。

中文参考文献需要提供对应的英文，列在同一序号下。

基本格式1（适用于期刊文献，文献类型为J）[1-3]：

[序号]责任者.题名[文献类型].来源（刊名），年，卷（期）：起始页码-结束页码（或文章编号）.

基本格式2（适用于会议论文文献，文献类型为C）[4-5]：

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基本格式3（适用于专著、标准、学位论文、报告文献，文献类型分别为M、S、D、R）[6-10]：

[序号]责任者.题名[文献类型].出版（发表/

告）地（城市名）：出版（学位授予/报告发布）机构，年份：起止页码（非必需）。

1. 不属于上述任一类型的文献，请暂在文献类型标识处留空。
2. 来源于网络的文献，除责任者（作者）和文献题名外，还请给出具体网页的完

整路径。所提供的文献信息应准确、可检索。

1. 所引文献为中文文献的，请同时用中英文给出，确属无法查到文献原始英文信息的只用中文给出；其他语种的文献请用英文给出，非英文的外文文献在英文内容

尾加括号注明原语种，如（in Japanese）。

1. 作者人数达4名及以上的，姓名给至第三作者，其后加“等”或“et al”。英

文文献作者姓名请用姓前名后的格式，名用首字母缩写。

1. 结语

写结论。

（**最后，作者必须提供下页所示的Extended Summary，作为单独的一页附录。**）

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示例

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**Key words**: A; B; C; D

**例1.**

In the context of the carbon peak and carbon neutrality, how to further reflect the low-carbon attributes of new energy in the carbon emission trading mechanism and xxxxx xxx xxxxxx xxxx xxx xxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

This paper constructs a green certificate-carbon emission equivalent interaction mechanism, and proposes a green dispatch method for regional integrated energy systems that realizes the linkage between carbon emission trading and green certificate trading. Firstly, xxxxx xxxxxxxxx xx xxxxxxxxxxxx xxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx. Secondly, the green certificate-carbon emission equivalent interaction mechanism is proposed. The interaction principle of carbon emission trading and green certificate trading is shown in Fig.1.

Since the green certificate contains all the information of new energy power generation, and the carbon emission reduction of new energy supply can be calculated quantitatively, xxxxx xxxxxxxxx xxxxx xx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

Finally, with the goal of minimizing the total system cost, a regional integrated energy system opti-

**Fig.1 Schematic diagram of the interaction principle of carbon trading and green certificate trading**

mization model considering the interaction between carbon emission trading and green certificate trading is constructed. The results of the calculation examples are shown in Tab.1.

The simulation results show that the proposed green dispatch method for the regional integrated energy system (Scenario 4) that realizes the linkage between carbon emission trading and green certificate trading can help the system achieve economic optimization and increase the proportion of green electricity, and further reflect the environmental protection value of new energy xxx xxxxx xxxxx xxxx xxxxxxxxxxxxxxxxxxxxxxxx.

**Tab.1 Dispatching results of different scenarios**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Scene number | Operating cost/￥ | Carbon tradingcost/￥ | Green certificatetrading cost/￥ | Total cost/￥ | Proportion ofgreen electricity/% | Energy savingrate/% | Comprehensive energy utilizationrate/% |
| Scene 1 | 89155.81 | 0 | 0 | 89155.81 | 21.76 | 45.94 | 82.63 |
| Scene 2 | 89186.25 | 3796.06 | 0 | 92982.31 | 21.22 | 46.05 | 82.8 |
| Scene 3 | 89162.67 | 3803.94 | -2850 | 90116.61 | 18.9 | 46.02 | 82.76 |
| Scene 4 | 89177.81 | 1592.9 | -2500 | 88270.71 | 22.86 | 45.96 | 82.64 |

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**Key words**: A; B; C; D

**例2**

The new power system faces increasing uncertainty and complicated operation mechanism, resulting from the penetration of renewable energy and power electronics. The advanced information technology is expected to alleviate the situation by facilitating the reliable acquisition, safe transmission, and efficient processing of information. As quantum xxx xxxx xxxxxxxxxxxxx xxxxx xxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

This paper reviewed the status quo of the application of quantum informatics in power systems from two fields, namely quantum communication and quantum computing. The security of quantum communication depends on fundamental properties of quantum mechanics and any eavesdropper can be detected by both sides of the communication. xxx xxxx xxxxxx xxxxxxxxx xxx xxxxxxxxxx xxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

xxxx xxxxxx xxxxxxx xxx xxxxxxxxxx xxxx x xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx. At present, quantum algorithms and quantum derivative algorithms have been applied to power flow calculation, unit combination, fault detection and diagnosis, stability evaluation, operation control, optimization planning, and other fields as shown in Fig.1. The basic principles of quantum computing methods and their research status in power systems are summarized from the aspects of mathematical attributes as linear algebraic operations, optimization problem solving, machine learning, and parameter estimation.

The application of quantum informatics in power systems has just started, and there is a wide range of research gaps to fill. In the future, it is necessary to keep focusing on core technology research, xxx xxxxx xxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

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**Fig.1 Exploratory research on quantum computing in power systems**