

## 平成16年度COE特別研究奨励費研究計画調書

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| (ふりがな)<br>氏名 | NYEIN WINK LWIN   |      | 所 属          | 資 格                                       |
|              |   |      | 物理学専攻        | COEフェロー・ <u>博士</u> (4年・3年・2年・ <u>1年</u> ) |
| 研究課題         | 40文字以内で記入すること。<br>The study of nuclear structure using relativistic mean field theory |      |              |   |
| 研究指導者        | 職名  | 氏名   | 15年度奨励費採択の有無 |   |
|              | 教授  | 滝川 昇 | 有 ・ <u>無</u> |   |

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| 研究目的   | 募集要領の趣旨に沿った目的を簡条書きで具体的に記入すること。  |
| <p>The main aim of this study is as follows.</p> <ul style="list-style-type: none"> <li>To study the structure of unstable nuclei using relativistic mean field theory (RMF). I intend to investigate the difference in the deformations of proton and neutron distributions, e.g. for C isotopes, by using the energy surface as a function of the proton and neutron deformation parameters.</li> <li>To explore, in particular, the role of pairing interaction and the strength of spin-orbit force.</li> </ul>  |   |
| 研究計画   | 研究経費との関連も含めて、何をどこまで明らかにしようとするかがわかるように焦点を絞り、簡条書きで記入すること。また、設備備品費又は旅費が90%を超える場合は、研究計画の特殊性ないし特殊事情について記入すること。 |
| <ol style="list-style-type: none"> <li>I want to clarify the parameter set which gives the proper value of spin-orbit splitting, and use it to calculate the energy surface as a function of proton and neutron deformation parameters.</li> <li>I wish to study the change of deformations of the proton and neutron density distributions by using a modern treatment of the pairing correlation such as including continuum states in solving the gap equation and using the result of renormalization group, or by developing a new treatment.</li> </ol> <p>I wish to attend domestic as well as international workshops, seminars and conferences of nuclear structure and related topics. I believe that it will be very useful for me to advance my studies. The required travel expenses are to support these activities.</p> |   |