

量子科学研究センターセミナーのご案内

シンガポール・南洋理工大学（Nanyang Technological University）の Wonkeun Chang 先生が、札幌で開催の国際会議 CLEO-PR で訪日されるのを機に本学を訪問されます。

Chang 先生は、様々な形状の Hollow-core fiber を作成され、それをもとに光と物質の相互作用を制御する研究を精力的に進められています。本学で博士の学位を取得した卒業生の現在の Posdoc 研究員としての受入れ教員でもあります。

つきましては下記の要領でセミナーを開催いたします。

研究室の研究員、学生の皆様もお誘い合わせのうえ、奮ってご参加下さい。

量子科学研究センターHP: <http://www.ias.uec.ac.jp/>

IAS Seminar on Optical Science

Date: Friday, 29 July 2022

Time: 16:15-17:15

Place: Room #803, East 6 Building, UEC

Speaker: Wonkeun Chang, Nanyang Technological University (Singapore)

Title: Staging light-matter interactions in hollow optical fibers

Abstract: Hollow-core optical fibers traps and transmits light in its central hollow region. This leads to three interesting implications. (i) The absorption in the waveguide material can be minimized as the light is tightly confined in the hollow region with only a small overlap with the glass. (ii) Since the light is guided in the hollow region, power-damage threshold of the fiber is substantially enhanced, which makes it suitable for high-power applications. (iii) Strong light-matter interactions can be induced over a long length by filling the fiber with matter, and the light-guiding properties can be engineered by varying the filling material. These features make hollow-core optical fiber an interesting platform for various applications. In the seminar, I will present an overview of and our contributions to recent progress in the hollow-core optical fiber technology with emphasis on its applications in novel light source development.

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