

東北大学大学院情報科学研究科数学教室

情報数理談話会のお知らせ

日 時： 2012 年 10 月 23 日 (火) 16:15 から 17:15 まで
(16:00 より会場にお茶を用意しております)

場 所： 東北大学大学院情報科学研究科棟 2 階大講義室

講演者： S. Ponnusamy 氏 (Indian Statistical Institute,
Chennai Centre)

題 目： Univalent harmonic mappings with integer or half-integer coefficients

〈概要〉 The set S of all normalized univalent analytic functions on the unit disk $|z| < 1$ plays leading role in the development of geometric function theory in many different ways. In 1946, B. Friedman found that the set of those functions which have integer coefficients consists of only nine functions. In a recent paper Hiranuma and Sugawa proved that the similar set obtained for the functions with half-integer coefficients consists of twelve functions in addition to the nine. In the present talk, we give a over view of certain aspects of harmonic univalent functions f and determine the class of all normalized sense-preserving univalent harmonic mappings on the unit disk with half-integer coefficients for the analytic and co-analytic parts of f . It is surprising to see that there are only six functions in this class that are not conformal. This settles the recent conjecture of the authors. This is joint work with J. Qiao.

ホームページ： <http://www.math.is.tohoku.ac.jp/research/colloquium.html>