1014-47-310   **Peter G. Casazza*** (`pete@math.missouri.edu`), Department of Mathematics, 201 Mathematical Sciences Building, University of MIssouri, Columbia, MO 65211-4100, **Fickus Matt** (`matthew.fickus@afit.edu`), Department of Mathematics and Statistics, Air Force Institute of Technology, Wright-Patterson Air, OH 45433, **Crandell Janet Tremain** (`janet@math.missouri.edu`), Department of Mathematics, 201 Mathematical Sciences Building, University of Missouri, Columbia, MO 65211-4100, **Roman Vershynin** (`vershynin@math.ucdavis.edu`), Department of Mathematics, University of California - Davis, Davis, CA 95616, and **Eric Weber** (`esweber@iastate.edu`), Department of Mathematics, 396 Carver Hall, Iowa State University, Ames, IA 50011. *The Kadison-Singer Problem in Mathematics and Engineering: Part II.*

We will see that the 1959 Kadison-Singer Problem in C*-algebras is equivalent to fundamental unsolved problems in a dozen areas of research in both Mathematics and Engineering. This explains why each of these areas has volumes of literature on their respect problems without a satisfactory resolution as well as giving them common ground to interact. We will look at some of the areas of research where KS arises. (Received September 08, 2005)