1067-30-1445   **Gou Nakamura*** (`gou@aitech.ac.jp`), Center for General Education, Aichi Institute of Technology, Yakusa-cho, Toyota, 470-0392, Japan. *Compact Klein surfaces of genus 5 with extremal discs.*

A compact orientable or non-orientable hyperbolic surface S of genus g is called an extremal surface if it admits an extremal disc, a disc of the largest radius determined by g. Our problem is to determine extremal surfaces and to find how many extremal discs are embedded in them. If S is a compact Riemann surface of genus $g \geq 2$ or a compact Klein surface of genus $g = 3, 4$ or $g > 6$, then the problem was already solved. In this talk we shall discuss the extremal Klein surfaces of genus 5 and show that there are 3627 surfaces to be considered. (Received September 21, 2010)