962-11-369   **Hari M Srivastava*** (`harimsri@math.uvic.ca`), Department of Mathematics and Statistics, University of Victoria, Victoria, B. C. V8W 3P4, Canada. *Some Integrals and Series Associated with the Riemann Zeta Function.* Preliminary report.

Recently, by evaluating certain trigonometric integrals in several different ways, the author, M. L. Glasser, and V. S. Adamchik [*Z. Anal. Anwendungen* **19** (2000), 831-846] derived a family of series representations for the Riemann Zeta function $\zeta(s)$ when s is an odd positive integer greater than 1. The main object of this presentation is to exhibit and exploit the relationships of these recent results with many rapidly convergent series representations for such Zeta values, which were obtained in several other works on the subject (see, for example, N.-Y. Zhang and K. S. Williams [*Rocky Mountain J. Math.* **23** (1993), 1581-1592], D. Cvijović and J. Klinowski [*Proc. Amer. Math. Soc.* **125** (1997), 1263-1271], and the author [*Proc. Amer. Math. Soc.* **127** (1999), 385-396; *J. Math. Anal. Appl.* **246** (2000), 331-351]; see also M. Katsurada [*Acta Arith.* **40** (1999), 79-89]; the author and H. Tsumura [*J. Comput. Appl. Math.* **118** (2000), 323-335; *Math. Sci. Res. Hot-Line* **4**(7) (2000), 17-24], and others). Some illustrative examples of symbolic and numerical computations, using *Mathematica* (Version 4.0) for Linux, will also be considered. (Received September 12, 2000)