1086-20-226 **Sangjib Kim** (skim@maths.uq.edu.au), School of Mathematics and Physics, The University of Queensland, St Lucia, QLD 4072, Australia, and **Victor Protsak*** (protsak@oswego.edu), Department of Mathematics, State University of New York at Oswego, Oswego, NY 13126. *On GL_n to GL_{n-2} Branching Multiplicity Spaces.*

Using Howe's reductive dual pair philosophy, we study the branching multiplicity spaces for the irreducible representations of the complex general linear group GL_n under its restriction to GL_{n-2}. These spaces admit hidden symmetries extending the natural GL_2-action, namely, the Yangian $Y(\mathfrak{gl}_2)$ and the $(n-1)$-fold product of $\mathfrak{sl}_2$'s. We connect the combinatorial description of the branching multiplicity spaces in terms of Gelfand–Tsetlin patterns with explicit formulas for differential operators realizing the hidden symmetries. (Received August 17, 2012)