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**HADI KHARAGHANI**, University of Lethbridge  
*The Gramian of mutually unbiased Hadamard matrices*

Two Hadamard matrices  $H$  and  $K$  of order  $n$  are called *unbiased* if the absolute value of all the entries of  $HK^t$  equal  $\sqrt{n}$ . The Gramian of any ordered set of mutually unbiased Hadamard matrices contains very interesting configurations including some 3-class symmetric association schemes. We will concentrate on the case where  $n = 4^n$  for this talk.