The Trace Formula and Its Applications: An Introduction to the Work of James Arthur

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Abstract. James Arthur was awarded the Canada Gold Medal of the National Science and Engineering Research Council in 1999. This introduction to his work is an attempt to explain his methods and his goals to the mathematical community at large.

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During the preparation of this introduction I was able to profit from frequent conversations with Arthur himself. I am grateful for the patience with which he responded to my many questions.
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