## **ABSTRACT**

Horton, K. R. (2016) Friction Stir Welding and NASA

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Friction stir welding (FSW) is a solid state welding process with potential advantages for aerospace and automotive industries dealing with light alloys. Self-reacting friction stir welding (SR-FSW) is one variation of the FSW process being developed at the National Aeronautics and Space Administration (NASA) for use in the fabrication of propellant tanks and other areas used on the Space Launch System (SLS)

NASA's SLS is an advanced, heavy-lift launch vehicle which will provide an entirely new capability for science and human exploration beyond Earth's orbit. The SLS will give the nation a safe, affordable and sustainable means of reaching beyond our current limits and open new doors of discovery from the unique vantage point of space

This talk will elaborate on the SR-FSW process and it's usage on the current Space Launch System Program at NASA.