



# The Beginnings and Ends of Double White Dwarfs

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## Three-dimensional simulations of double detonations in the double-degenerate models for type Ia supernovae

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The discovery of hypervelocity white dwarfs strongly supports the Dynamical-Driven Double-Degenerate Double-Detonation ( $D^6$ ) model for type Ia supernova scenario. We have performed high-resolution SPH simulations of  $D^6$  explosions in various double-degenerate systems. We have found several explosion modes. In this presentation, we will show observational features of these explosion modes.

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