dynamical examples are presented that validate this method. Two consecutive episodes, ensuring spatio-temporal continuity. This method has the advantage that the formulation leads to a non-linear system of algebraic equations. The method produces dynamical structures that evolve in space and time. Classical methods of low-dimensional modeling rely on decomposing flow-fields into a set of modes. In contrast to standard POD, this extension of standard POD that leads to the construction of spatio-temporal POD eigenfunctions called “episodic modes.” In contrast to standard POD, this method leads to a non-linear system of algebraic equations. The formulation also enables us to progress over contiguous chunks of time rather than computing the velocity state at every instance in time. Fluid dynamical examples are presented that validate this method.