

**A blowup criteria along maximum points of the  
3D-Navier-Stokes flow in terms of stationary Euler flows  
and function spaces with variable growth condition**

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This is a joint work with Professor Eiichi Nakai. A blowup criteria along maximum points of the 3D-Navier-Stokes flow in terms of stationary 3D Euler flows and function spaces with variable growth condition is constructed. This criterion is different from the Beale-Kato-Majda type and Constantin-Fefferman type criterion. If geometric behavior of the velocity vector field near the maximum point has a kind of stationary Euler flow configuration up to a possible blowup time, then the solution can be extended to be the strong solution beyond the possible blowup time. Geometric configuration of the stationary Euler flow near the maximum point is also considered.