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**Wake Behind a Sphere Second Bifurcation** KONRAD GUMOWSKI,  
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The objective was to study second transition phenomenon and to make transition  
between second and third regimes better known. We present in this communica-  
tion very controlled experiments concerning second instabilities in the wake of the  
sphere. We discuss the first transition from homogenous flow to a stationary in-  
stability and we present original results about peristaltic instability preceeding the  
hairpins shedding. From our results we proposed now a new insight on the generation  
of hairpins-vortex shedding phenomena. We obtained a new scenario “precursor” of  
the hairpin vortex shedding, with a peristaltic instability of oscillations of the two  
parallel counter-rotating vortices behind a sphere.

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