| cases | doc_1 | doc_2 | decision | id |
|---|---|---|---|---|
| | | | NOT DUPLICATES | 453 |

**doc_1**

| | |
|---|---|
| **authors** | • Peter Hall |
| **title** | On the stability of the unsteady boundary layer on a cylinder oscillating transversely in a viscous fluid |
| **publication_date** | 1984-09-01 00:00:00 |
| **source** | SupportedSources.OPENALEX |
| **journal** | Journal of Fluid Mechanics |
| **volume** | 146 |
| **doi** | 10.1017/s0022112084001907 |
| **urls** | • https://openalex.org/W2970313046<br>• https://doi.org/10.1017/s0022112084001907<br>• https://ntrs.nasa.gov/api/citations/19840002431/downloads/19840002431.pdf |
| **id** | id-6354240527851745473 |
| **abstract** | |
| **versions** | |

**doc_2**

| | |
|---|---|
| **authors** | • Hall, P. |
| **title** | On the stability of the unsteady boundary layer on a cylinder oscillating transversely in a viscous fluid |
| **publication_date** | None |
| **source** | SupportedSources.CORE |
| **journal** | |
| **volume** | |
| **doi** | None |
| **urls** | • https://core.ac.uk/download/pdf/42850929.pdf |
| **id** | id-8830880977266301529 |
| **abstract** | The stability of the two-dimensional flow induced by the tranverse oscillation of a cylinder in a viscous fluid is investigated in both the linear and weakly nonlinear regime. The major assumption that is made to simplify the problem is that the oscillation frequency is large in which case an unsteady boundary layer is set up on the cylinder. Results are given for cylinders of elliptic cross section and it is found that for any given eccentricity the most dangerous configuration is when the cylinder oscillates parallel to its minor axis. Some discussion of nonlinear effects is also given and for the circular cylinder it is shown that the steady streaming boundary layer of the basic flow is significantly altered by the instability |
| **versions** | |