# intrinsically linked

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| Canonical name | IntrinsicallyLinked |
| Date of creation | 2013-03-22 18:06:11 |
| Last modified on | 2013-03-22 18:06:11 |
| Owner | YourInnerNurmo (20577) |
| Last modified by | YourInnerNurmo (20577) |
| Numerical id | 7 |
| Author | YourInnerNurmo (20577) |
| Entry type | Definition |
| Classification | msc 54J05 |
| Related topic | IntrinsicallyKnotted |

A graph $\Gamma$ is *intrinsically linked* if any embedding of $\Gamma$ in $\mathbb{R}^3$ contains a nontrivial link.

*Example:* $K_6$, the complete graph on 6 vertices, was proven to be intrinsically linked by Conway and Gordon.

The property of being *not* intrinsically linked is inherited by minors. That is, if $\Gamma$ is not intrinsically linked and $\Gamma'$ can be obtained from $\Gamma$ by edge contractions or deletions, then $\Gamma'$ is also not intrinsically linked.
By the Robertson-Seymour Theorem (formerly Wagner's Conjecture), the obstruction set for this property must be finite. This means that the set of minor minimal intrinsically linked graphs is finite. In fact, there are 7 graphs in this set; it is known as the Petersen family, and it consists of graphs which can be obtained from $K_6$ by repeated $\triangle$-Y or Y-$\triangle$ transformations.