## The Theory of Love

This Valentine's Day, star-crossed lovers and secret admirers can purchase their very own proof of True Love.

A spin-out company from the University of Edinburgh, TheoryMine, discovered the Theorem of True Love using one of the world's most advanced computerised theorem provers and is giving romantic souls the opportunity to name a new theorem after their beau.

- According to mathematical tradition, the author of a theorem is entitled to name it for posterity and once proved, the theorem will stay true forever. TheoryMine grants that authority to the customer.
- Flaminia Cavallo, Managing Director of TheoryMine says, "Plato once wrote that at the touch of love, everyone becomes a poet and now you can become a mathematician too. Like love, a theorem is a thing of beauty that has always fascinated mathematicians. It is a formula that has been proven to be true, always and ever. Mathematicians can spend months or even years working to prove their theorems and I find that very romantic. It takes so much commitment and hard work not dissimilar to a long lasting love affair."

The company, which launched in December, has already sold over 700 theorems. The Chief Scientific Officer for Scotland, Anne Glover, became Theory Mine's first customer after snapping up the Glover-George Theorem.

TheoryMine is based on decades of world-class research into automated reasoning and artificial intelligence undertaken at the University of Edinburgh. It uses grammars of theories and theorems to generate candidates, filters out the obviously false and uninteresting ones, then uses automated reasoning to see which of the remainder it can prove.

The reasoning in the proof of the theorem is deductive, so contains no element of probability or uncertainty. Since theorems are abstract objects that are not subject to wear and tear, you can be sure that your gift will last forever, even if your romance doesn't.

And the price of everlasting True Love? Just £15. Here is an example of the certificate you could get....

