

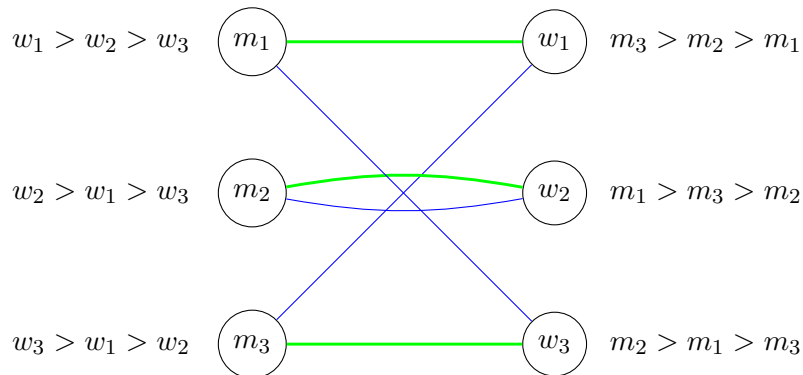
Stable Matching

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Lecture 2

1 Example

I want to iterate the fact that un-stability of a pair is with respect to a matching. In other words, a pair (m, w) may be a stable pair with respect to a matching M but unstable with respect to M' .



In this picture observe that the pair (m_1, w_2) is an unstable pair for the blue matching because m_1 likes w_2 more than his match (w_3), and w_2 likes m_1 more than her match (m_2).

But the same pair, (m_1, w_2) , is a stable pair for the green matching. This is because, although w_2 prefers to be with m_1 than her match (m_2) in green matching, m_1 is already happy with his match w_1 in green. To emphasize again, a pair (m, w) is an *unstable* pair if both individuals prefer to be with each other than their current match. In the last example, only one individual w_2 wants to deviate and be with m_1 and that is not enough for (m_1, w_2) to be an unstable pair for the green matching.