FIGURE 14.16. The additive genetic variance can be estimated from the covariance between parent and offspring. The offspring carries one genome from the father (blue) and one from the mother (red); these contribute $A_1$ and $A_2$ to the breeding value, respectively. The covariance between father and offspring depends on only the genes that they share (blue), and so is equal to $\text{var}(A_1)$.

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