Title: Forcing partial orders comparable to the Mathias and Cohen forcing partial orders.

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Abstract: Cholak, Dzhafarov, Hirst and Slaman showed that, for $n \geq 3$, every Mathias n-generic computes a Cohen n-generic. In some sense, then, the forcing partial order associated to Mathias forcing is stronger than that associated to Cohen forcing. Motivated by this idea, we define a collection $\mathcal{C}$ of forcing partial orders $(\mathbb{P}, \leq)$ with $\mathbb{P} \subseteq 2^{<\omega} \times \omega$ and say that $\mathbb{P} \leq_{\mathcal{C}} \mathbb{Q}$ ($\mathbb{Q}$ is stronger than $\mathbb{P}$) if, for all sufficiently large n, every n-generic for $\mathbb{Q}$ computes an n-generic for $\mathbb{P}$. There are partial orders $\mathbb{P}_{Cohen}$ and $\mathbb{P}_{Mathias}$ in $\mathcal{C}$ whose n-generics are exactly the traditional Cohen and Mathias n-generics, respectively. We modify Cholak, Dzhafarov, Hirst and Slaman's result to show that $\mathbb{P}_{Cohen} \leq_{\mathcal{C}} \mathbb{P}$ for every $\mathbb{P} \in \mathcal{C}$; applying methods from later work by Cholak, Dzhafarov and Soskova, we show that $\mathbb{P} \leq_{\mathcal{C}} \mathbb{P}_{Mathias}$ for every $\mathbb{P} \in \mathcal{C}$ and characterize the other partial orders that lie on top of $\mathcal{C}$.