Integrable peakon models -- Scalar case

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In this talk, I will majorly focus on the scalar peakon models developed in last 30 years. Most integrable peakon equations come from the negative order flow in the hierarchy. The key path for constructing the negative order flows is how to figure out the inverse of the recursion operator. I will take some example to explain this, and then introduce higher order models with peakons or pseudo-peakons we proposed recently. Some open problems will also be addressed for discussion in the end.