proposed move to System F

At the Manticore meeting on 11/7/07, we discussed moving BOM in the direction of System F.

The following summarize the proposed changes to the `<code>`BOM</code>`<code>` module:

New syntactic forms:

- `let x : tau = y [tauVec]`
- `apply f [tauVec] [... / ...]`
- `let x : tau = CONS [tauVec] ( ... )`
- `let x : tau = CONST [tauVec]`
- `throw k [tau] ( ... )`

New types:

- `alpha (* type variables *)`
- `forall alphaVec . tau`
- `T [tauVec]`
- `tau + tau`

Here are the changes to the datatypes in the `<code>`BOM</code>`<code>` module:

```haskell
datatype term
  = ...
    E_Apply of (var * ty list * var list * var list)
    E_Throw of (var * ty list * var list)
    E_HLOp of (hlop * ty list * var list * var list)

and rhs
  = ...
    E_TyApply of (var * ty list)
    E_DCon of (data_con * ty list * ty list)

and lambda = FB of
  Unknown macro: { f }

and pat
  = P_DCon of (data_con * ty list * var list)

P_DConst of (data_con * ty list)
  ...

and the changes to the BOMTy module:

datatype ty
  = T_Var of ty_var
    T_Forall of (ty_var list * ty)
    T_TyCon of (tyc * ty list)
    ...

We'll also need to add the `<code>`ty_var</code>`<code>` type and make changes to the representation of `<code>`tyc</code>`<code>`s.