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## DeFi Derivative Landscape

### A hopefully comprehensive guide to the defi derivative landscape

#### Projects

##### Options

- Panoptic - Decentralized Perpetual Oracle-Free Options built on top of concentrated liquidity AMMs
  - Whitepaper
  - Video
  - Twitter
- Oryn - Orderbook options protocol with power perpetuals and power perpetual strategies launching soon
  - Trade
  - Gamma Portal
  - Oryn Analytics
  - Oryn Developer Kit
- Predy - Drivative AMM protocol with Power Perpetual using Portfolio Margin. Live on Arbitrum.
  - Trade
  - Doc
- Hegic - Options with a liquidity pool
  - Trade on v888
  - Trade on v1
  - v888 Whitepaper
  - v1 Whitepaper
  - Whiteheart - Onchain Hedging contracts using hegic
- Hedgey - Decentralized Orderbook options protocol for any pair of tokens (primarily long tail assets), targetted at Token Treasury & Community
  - Create/Trade
  - Buy
  - Analytics
  - Docs
  - Github

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- Dopex - Decentralized options pooled exchange on arbitrum
    - Trade
    - Docs
    - Single Staking Vaults
    - Curve Gauge War Options
  - Primitive - Crypto Derivatives Without Oracles
    - Trade
    - Introducing Primitive
    - Docs
      - \* RMM SDK
      - \* RMM Simulations
      - \* RMM Examples
    - In depth Primitive Overview
  - Premia - Options AMM
    - Trade
    - Docs
    - Premia volatility surface oracle
    - Premia AMM
  - Opium Protocol - Decentralized Derivatives Settlement Protocol and Infrastructure
    - Trade - Automated derivative trading strategies built on protocol
    - Dashboard
    - Docs
    - Github
  - Siren - Polygon derivative trading with, leverage without liquidations
    - Trade
    - Siren V2
    - Docs
  - Pods - Options AMM
    - Trade
    - Docs
    - Whitepaper
  - Vega - Derivative layer 1 based on tendermint

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- Trade
    - Published Papers
    - Research Forum
  - Lyra - Options AMM protocol with a dynamic volatility input, on Optimism
    - Trade
    - Docs
    - Whitepaper, good for understanding why dynamic volatility is important in an AMM
  - PsyOptions - Solana american style options
    - Trade
    - Docs
  - Zeta - Solana options and futures exchange
    - Trade
    - Docs
      - \* The OMM
    - Fuze SDK
  - Arrow - Democratize Option Market Making, Brokering, Clearing and Settlement
    - Trade(TestNet)
    - Litepaper
  - Levana - American style options on Juno
    - Trade(TestNet)
    - Docs

## **Perpetuals**

### **Swaps**

- DyDx - Perpetual Contracts on StarkWare
  - Trade
  - Docs
  - Dashboard
- Perpetual Protocol - Arbitrum and Optimism Perpetual contracts
  - Trade

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- ★ Trade on V2
  - Docs
    - ★ Litepaper
    - ★ Deep dive into vAMM
    - ★ Perp V2 (Curie) Technical Details
    - ★ V2 (Curie) Docs
  - DerivaDEX - DEX for trading derivatives
    - Beta Trade
  - FutureSwap - Perpetuals trading pools
    - Trade
    - Docs
  - Kine Protocol - Peer to Peer derivative trading
    - Trade
    - Docs
    - Dashboard
    - Trade NFTs
  - Mango - Solana lending, spot and perpetuals trading
    - Trade
    - Docs
    - Dashboard
  - Drift - Solana perpetual trading based on a vAMM
    - Trade
    - Docs
    - Dashboard
  - Hubble Exchange - Avalanche perpetual trading based on a vAMM with dynamic repegging
    - Trade
    - Whitepaper
  - Tracer - Perpetual derivative pools
    - Trade
    - Docs
  - Injective - Trade perpetual contracts
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- Trade
    - Docs
  - Deri Protocol - Perpetual futures and everlasting options
    - Trade
    - Docs
    - Whitepaper
      - \* Whitepaper V3
  - Pika - Perpetual trading on optimism
    - Trade
    - Docs
  - MCCDEX - AMM perpetual trading with a shared liquidity model
    - Trade
    - Docs
      - \* V3 AMM Design
      - \* Shared Liquidity Model
  - GMX - Arbitrum and Avalanche perpetual contracts
    - Trade
    - Docs
    - Leaderboard
    - Dashboard
  - Cap Finance - Perpetual contracts on arbitrum
    - Trade
    - Docs
    - Whitepaper
  - Anon Farm - Permissionless perpetual contracts backed by uniswap v3 positions
    - Trade
    - Docs
  - Levana - Perpetual swaps on Osmosis
    - Trade(Testnet)
    - Docs
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## Options

- 01 protocol - Solana everlasting options
  - Trade
  - Everlasting Options
  - Binary Options
- Oryn
  - Squeeth ( $\text{ETH}^2$ )
    - \* Intro to Squeeth
    - \* Crab Strategy
    - \* Understanding Perpetual Vaults in DeFi: Options Strategies
    - \* Squeeth insides volume 1: funding and volatility
- Predy
  - $(\text{ETH})^2$ -Perpetual

## Volatility

- CVI - Tokenized volatility protocol
  - Trade
  - Docs
- Volmex - Tokenized volatility protocol
  - Trade
  - Docs
- Qilin - Decentralized volatility protocol
  - Trade
  - Docs
- Divergence Protocol - Trade volatility
  - Trade
  - Docs

## Composable Yield and Interest Rate Swaps

- Pendle - Trade and hedge future income

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- Trade
    - Docs
    - Yield token capital efficiency
    - Locking Yield with Pendle — Case Study #1, Locking Swap Fees — Case Study #2
    - Pendle — Base Use Cases & Strategies
    - Pendle AMM
  - Element - Fixed rate lending protocol
    - Trade
    - Docs
    - Whitepaper
    - The Automated Fixed Rate Rebalancer
    - De-Collateralize, an Alternative to Collateral Backed Loans
    - Component Yield Token Compounding
  - Prism - Split digital assets into yield and principal components
    - Whitepaper
  - Volt - Interest rate swap AMM
    - Overview
    - Litepaper

## **Structured Products**

- Antimatter - Principal protected structured products
  - Trade
  - Docs
- UXD - Algorithmic stablecoin backed by delta neutral positions on Solana
  - Trade
  - Docs
- Lemma - Basis trading protocol
  - Trade
  - Docs

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## Option Vaults

- Ribbon - Option vault structured product protocol
  - Trade
  - Docs
- Friktion - Option vaults on Solana
  - Trade
  - Docs
- Thetanuts - Option Vaults for long tail assets
  - Trade
  - Docs
- StakeDAO - Portfolio manager with option vaults
  - Trade
  - Docs
- Katana - Yield generation protocol for Solana
  - Trade
  - Docs

## Staking Derivatives

- Lido - Liquidity for staked assets
  - Trade
  - Docs
  - Dashboard
- Marinade - Solana staking derivative
  - Trade
  - Docs
- Stakewise - ETH2 liquid staking
  - Trade
  - Docs
- Rocketpool - ETH2 liquid staking
  - Trade



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- Docs
    - ★ Guides
  - Solana native stake pool
  - Claystack - Liquid staking for many assets
    - Trade
    - Overview

## **NFT options and fractional shares**

### **Reading**

- A Guide to Designing Effective NFT Launches
- Recurrently Issued Collectively Kept Shards
- Martingale Shares
- Floor Perps

### **Projects**

- Floor - Liquidity for NFTs
  - Introducing FloorDAO
- Fraction

### **Other**

- UMA - Various structured and financial products
  - Products
    - ★ Optimistic Oracle
    - ★ Long Short Tokens
    - ★ Call/Put Options
    - ★ Range Tokens
    - ★ KPI Options
    - ★ Success Tokens
  - Docs
- Barnbridge - Tokenized risk protocol
  - Products

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- ★ Smart Yield Bonds
    - ★ Smart Exposure
    - ★ Smart Alpha
  - Docs
  - Whitepaper
  - Saffron - Traunched Risk
    - Trade
    - Docs
  - Thales - Binary options trading
    - Trade
    - Docs
  - Synthetix - Derivatives liquidity protocol
    - Trade
    - Docs
    - Dashboard
  - Kwenta - Derivatives trading, with zero slippage powered by synthetix
    - Trade
    - KIPs
  - Synfutures - Future trading
    - Trade
    - Trade NFT Futures
    - Dashboard
    - Whitepaper
    - Technical Paper
  - Risedle - Leveraged Tokens protocol
    - Trade Demo
    - Docs
    - Litepaper
  - Overlay Protocol - Trade data streams
    - Trade
    - Docs
    - Whitepaper

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## **Selected Reading**

### **Option AMMs**

- Single-Sided Automated Market Maker for European Options
- Hegic Whitepaper
- Dynamic Curves for Decentralized Autonomous Cryptocurrency Exchanges
- A primer on perpetuals

### **Replicating Payoffs**

- Replicating Market Makers
- The Replicating Portfolio of a Constant Product Market
- The Replicating Portfolio of a Constant Product Market with Bounded Liquidity
- Replicating Monotonic Payoffs Without Oracles

### **Concentrated Liquidity and Option Payoffs**

- Uniswap V3 LP Tokens as Perpetual Put and Call Options
- Pricing Uniswap v3 LP Positions: Towards a New Options Paradigm?
- How to Create Perpetual Options in Uniswap v3
- Synthetic Options and Short Calls in Uniswap V3

### **vAMMs**

- On vAMM's unnecessary for liquidity pool
- Perpetual Protocol Deep Dive into vAMM
- Drift Dynamic AMM
- Drift dAMM Deep Dive
- A reinforcement learning based approach to optimizing vAMMs

### **Power Perpetuals, Everlasting Options, and Perpetual Swaps**

- Cartoon Guide to Perps
- Everlasting Options
- Power Perpetuals
- Power Claims
- Raw Moments

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- Unbundling Gamma -  $\text{ETH}^2$ -PERP Proposal
  - Floor Perps

### **Other**

- A Protocol for Margining Derivatives
- An automatic market maker with a dynamic repeg