# TITLE Hybrid Quadratic-Voting

## **DESCRIPTION:**

This is in response to the ZKX Challenge: Building DAO (Easy) [Write a proposal DAO voting features that balance power of active users and power of whales (massive token holders), with governance proposals].Quadratic voting makes the power of a single voter proportional to the *square root* of the economic resources that they commit to a decision.

### **MOTIVATION:**

Some of the motivation for the proposal includes addressing and rectifying issues
like;
☐ Vulnerability to "Sockpuppets": Excessive vote buying from fake accounts
leaves the system too vulnerable to manipulation and destroys the integrity
of the democratic voting process.
☐ Tyranny of the Whales(massive token holders) Minority: the wealthy
minority is able to buy votes to enable them to skew the results of a position
the equity embedded in the democratic process disintegrates.
☐ Active users are not able to express how strongly they feel about a certain
decision because of some whale minority.

#### ADDITIONAL INFORMATION:

# How it works and what it's used for;

Hybrid Quadratic-Voting procedures can be developed with a high degree of freedom and customisation within DAOs and organizations with token-based membership and governance.

While quadratic voting serves a similar purpose to rank-choice voting (enabling one to express a preference for one option over another), it also has the additional benefit of weighing the degree of conviction. In contrast to other popular voting systems like one-person-one-vote or one-token-one-vote, *Quadratic-Voting* (QV) can help balance power, align incentives, and promote voter involvement.

## How It Works;

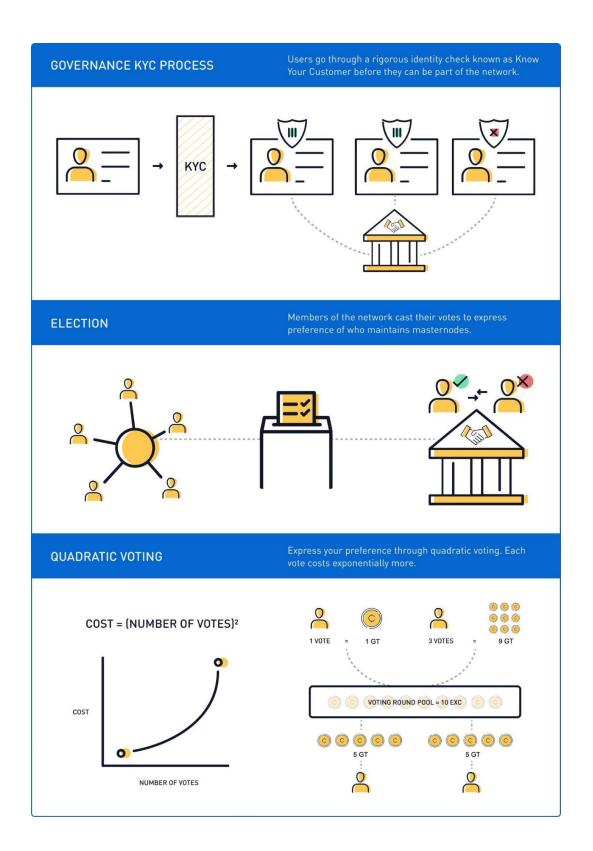
Voting using *Quadratic-Voting*(QV) is done in two parts

# Allocating "Tokens";

Every voter receives a set amount of "Governance Token." For illustration, this might be 100 GT. Each voter then divides their GT across all of the available options. The voter may then distribute their 100 GT among the options however they see fit. One choice could receive all 100 GT. The credits could also be distributed evenly among all options and weighted according to users preference.

#### **Vote Calculation**

The square root of the "tokens" allotted to each option makes up the counted votes. This implies that 10 votes are equal to 100 tokens applied to one option. 5 votes are equal to 25 tokens applied to one option. An option receives two votes when 4 tokens are applied, and so on.



# **Advantages**

# Advocates for minorities' protection

Quadratic-Voting (QV) aids in addressing situations where a passionate and outspoken minority's concerns may be disregarded by an uncaring majority. This makes single-issue zealotry expensive while also allowing minority concerns to be better balanced and recognized.

## Balancing power

Quadratic voting can help balance power among communities with a large spread in voting power. Compared with one-token-one-vote, QV can be better at incentivizing participation among members with lower ownership or voting power. This is because it can still recognize the outsized voting power of whales, while balancing their weight in ways that can feel more democratic. Alternatively, compared with ultra egalitarian one-person-one-vote mechanisms, QV can better recognize stakeholders that are more active or invested.

# **Examples of The use**

Quadratic voting has been tested by DAOs, nation-state governments, and online communities with democratic systems.

#### Government

In order to decide which appropriations legislation to finance first in 2019, the Colorado State House of Representatives adopted quadratic voting.

# Funding for Arts and Public Goods

The idea of "quadratic funding" has grown out of the quadratic voting notion and applies the same rationale to allocating matching funds. It accomplishes this by establishing a pool for matching funds, which is subsequently distributed in accordance with a quadratic voting formula that counts the initial contributions as votes. Gitcoin, which employs quadratic funding to promote open source software

projects, and Artizen, which uses quadratic matching to assist arts and other public goods projects, are two examples of how this is applied.

## **TEAM DESCRIPTION:**

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## **Estimated hours**

- 3 hours planning time
- 10 12 hours building time

Total: 13 -15 hours

Thanks.